

S U R G I C A L T R A C T S,

CONTAINING

A T R E A T I S E

U P O N

U L C E R S of the L E G S;

I N W H I C H

Former METHODS of TREATMENT are candidly
examined, and compared

W I T H

O N E more RATIONAL and SAFE;
Effected without REST and CONFINEMENT.

T O G E T H E R W I T H

Hints on a SUCCESSFUL METHOD of treating some
SCROPHULOUS TUMORS;And the *Mammary-Abcess*, and *Sore Nipples* of *Lying-in* Women.

T H E S E C O N D E D I T I O N ;*Revised, Enlarged, and Defended.*

T O W H I C H A R E N O W A D D E D ,

O B S E R V A T I O N S

O N T H E

M O R E C O M M O N D I S O R D E R S of the E Y E ,

A N D

O n G A N G R E N E .

By M I C H A E L U N D E R W O O D , M . D .

Æque Pauperibus prodest, Locupletibus æque.

H O R . L i b . i . E p . i .

L O N D O N :

P R I N T E D for J . M A T H E W S , N o . 18 , S T R A N D .

M D C C L X X X V I I I .

TO THE

MASTER, WARDENS,

A N D

COURT of ASSISTANTS,

OF THE WORSHIPFUL

COMPANY of SURGEONS.

GENTLEMEN,

THAT great Ornament of our
Profession, the late *Sir Cæsar
Hawkins, Bart.* having honoured a
former edition of this little work
with his approbation, will, I hope,
apologize for the liberty I now take
in

in dedicating this revised edition of it to you, and claiming your Protection.

The Public has long ago had opportunity of deciding on the merits of such parts of it as then appeared; and though their judgment has not been unanimous, (and in what instance has it ever been so?) the Author has had abundant Evidence from his own Experience, and from the testimony of Others, of his labors having been productive of much Good. Nor has the practice he enforced, as far as he has been able to learn, produced the evils some people had apprehended; while the strong manner in which another edition has been called for, is a presumptive indication of the favorable opinion of Others.

His

His aim and expectation, from the first, was public Good ; and he has certainly less temptation than ever to inferior motives, in the present publication. His desire therefore still is, that the work may stand upon its own proper merits ; and he is now happy in submitting it to a Court every way adequate to forming an impartial and valid Judgment ; and deciding upon its future Reputation.

However devoted of later years to another branch of Medicine, the Author is still proud of having received his first Education under the Best *Surgeon* in the World, and of submitting to the Profession, the result of some former experience in that line of practice. It were needless, therefore, to say what Claim You, Gentlemen, have

have to his labors, should they appear
to have any merit, and the Honour
you will do him in accepting this
Token of Respect, from

GENTLEMEN,

Your most obedient,

humble Servant,

MICHAEL UNDERWOOD.

Great Marlborough-Street,
October 10th, 1787.

P R E F A C E.

NO man publishes an opinion to the world, even on the most trivial occasion, without some view to himself, or others, or to both ; and custom has established an almost universal law, by which an author is bound either to discover his real motives, or to devise some plausible, and handsome excuse for his own boldness. The writer of the following sheets, without affecting any uncommon share of philanthropy, would not willingly have risked the favourable opinion of his friends, had he not been persuaded, that the practice he has ventured to recommend is founded on the most rational principles, and will not fail to be of some service to the distressed. He is

encouraged to say thus much, at least, having seen very considerable advantages arising from a method of treatment, materially different from that at present in fashion. And if any improvement can be suggested, in a branch of surgery confessedly imperfect, (for who will deny that sore legs are difficult of a lasting cure?) no great apology can be thought necessary, for communicating to the world any hints on the subject that may be useful.

It may add some weight to this little performance, to say, that it is the result of more than twenty years attention and experience; the writer having, for a long time, invited the poor to his house, and even common beggars, the most intractable of all patients, and such as, either for want of proper food, and clothing, or from their dissolute lives, are the most unlikely of all to be cured. He affects no other merit than this attention to so limited, and in general so much neglected, a branch of his profession; to which he was led, so long ago, by an instance that fell in his way, of a cure performed with great ease, and without confinement, by a very ignorant empiric, after two eminent surgeons had failed in the attempt. The knowledge of this at an early period in life, when youth and inexperience prompt

prompt to undertake any thing, having convinced him of the possibility of such cures, and led him to the knowledge of many, induced him to turn his thoughts to a subject, which he has never since lost sight of. In the mean time, his education under the best of masters, together with his long residence in one of the largest, and best conducted hospitals in this metropolis, as well as his attendance in those of *Paris*, gave him sufficient opportunities of seeing, that for some cause or other, the knowledge of completely healing old ulcers in the legs, has ever been very deficient and uncertain. The subject, though of so great importance to the suffering individual, has, perhaps, not appeared of sufficient consequence to eminent surgeons, whose employment has usually been both of a more profitable, and agreeable kind. It is hoped, gentlemen of this class, who deserve and possess the highest degree of public esteem and confidence, will not think this an injurious suspicion, especially as the mention of it is principally intended, to save the writer the mortification of having his first attempt thought inferior to the dignity of a first rate practitioner. Besides, any attempt must be laudable to rescue this branch from the hands of quacks and ignorant pretenders,

who it must be confessed, have sometimes got credit in these cases, where men of science and a regular education have failed. And here it may be proper, as the former class of practitioners needs no increasing, to add, that the precise quantities and forms of some of the applications hereafter mentioned, are not specified, but left to the judgment of the surgeon; who will find no difficulty in proportioning every active and powerful ingredient, to the nature and variety of each particular case, the writer not having the least design of concealing any thing from him.

The form, indeed, in which these observations are presented, requires more excuses than the author knows how to make; but he trusts that the plainness, or rather homeliness of their dress, will not so far prejudice them in the eyes of liberal men, as to prevent their being examined with candor, and made use of in practice, if they are found to be at all just and rational. A want of regularity and elegance in composition, may with truth in this case, be imputed to want both of experience, and leisure to study the correctness and imbellishments of language. He has, indeed, no pretensions as a writer—but though truth may be adorned by a florid style, or enforced by elegance of argument, the greatest deficiency

deficiency in these ornaments cannot invalidate facts, nor justify an ill-natured criticism, on that which made no part of the author's design.

As to the mode in which these observations are presented, the present was judged the most likely to answer any good end, for though what the author has to say in point of directions, might have been expressed in a smaller compass, or have appeared in some periodical publication, he could not, in such a channel, so fully support the principles he has laid down, nor justify his deviation from established authorities. He knew, moreover, that an attempt had been made in that way, by a gentleman of acknowledged abilities,* which did not seem to gain the attention of the public.

With regard to the few hints on scrophulous affections, and other matters slightly touched upon, they are likewise the result of some experience: how far they are worthy the attention of the public, is cheerfully submitted to their consideration.

The author, however, begs leave to urge again his good intentions, and to express his

* Mr. ELSE, *Med. Observ. and Inquiries*, Vol. iv.

hopes, that the success of his plan, may in other hands, be equal to his own ; and then he shall expect the satisfaction of contributing very greatly to lessen the difficulties and distresses of many afflicted fellow-creatures, to preserve some of them from leading miserable lives, and now and then prevent that most dreadful remedy for bad ulcers, the loss of a limb.

THIS second edition appears before the Public with fewer emendations, in point of style and manner, than might have been expected. But the author having been called to turn his thoughts somewhat another way, and to other publications, really has not found time since a second edition has been much inquired after, to pay sufficient attention to it. Indeed, without an entire change of plan, and new arrangement of matters, no adequate alterations, in these respects, could be effected ; although he hopes there are others of much more importance to the student. Besides, he is still of opinion,

opinion, that, on account of the doctrine being so opposite to former practice, and some prejudices to it yet remaining, an attempt to abridge the work very much, by simply objecting to the lenient plan, and merely stating his own, were not the best method of combating inveterate prejudices, or likely to establish a new mode of practice, as yet unsupported by great Names. The like reason, it is hoped, may apologize for continuing the long references and quotations from the ancients, which might otherwise have been omitted. He has, however, made a few corrections; has abridged and transposed several parts, and made considerable addition to others, in the tract upon ulcers; as well as attended to every objection that has come to his knowledge. The latter especially, he thought incumbent upon him, as it is probable he may not take up his pen again on surgical subjects; and he hopes he has executed it with modesty, though with a firmness becoming the defence of a mode of practice, which he conceives to be justified as well by theory as experience.

It was in design, indeed, to have made some farther Distinctions of ulcers, in order to assist young practitioners who may take up the plan; but he has not been able to do it to his mind.

Some progress, indeed, might easily have been made, but too many difficulties occurred to admit of a complete arrangement, with sufficient clearness for any good, practical use. Such specific distinction may, however, be made, and the careful observer, determined to pursue and profit by these hints, will not long be at a loss for it; but it will be best attained by experience. For, besides the peculiar symptoms attendant upon different ulcers, another discrimination is often necessary, which is so much an object of sense, that it can be conveyed but very imperfectly in words. For apart from the obscurity arising from the fluctuation of language, there are certain things of which words can convey no adequate ideas, however clear those of the writer may be. Architecture (if such an allusion might be allowed of here) furnishes an ample proof of this: for what words could have given any accurate conception of ancient buildings, (of which no drawings were preserved) had not their Ruins remained? But from these, conveyed by the Pencil's sister-art, ancient *Greece* and *Rome* are every where presented to view, and modern buildings rise in *Asiatic* or *Gothic* magnificence.

From the difficulties necessarily attending such an attempt in the present instance, it is hoped,

hoped, the reader, desirous only of practical information, will be still satisfied with the two former general distinctions of ulcers. Daily experience, it has been said, will render familiar to him others of less importance, will enable him to make a practical arrangement, and from the directions laid down, to select the treatment best adapted to every class he may make for himself.

The author would think himself happy if only the above objections might be made to the work, but he has to lament, that there are yet individuals of high rank in the profession, who satisfy themselves with giving their testimony altogether against a plan of which they have not been pleased to make a trial; either in their private or hospital practice; though it can be proved, that where their plan persevered in for several months, has done nothing, a cure hath been easily and safely effected upon this. It has, indeed, met with sufficient support elsewhere, and the author received both from abroad, and from different parts of this kingdom, the repeated thanks of many practitioners with assurance of its great success in their hands.

It is with concern, however, he has to observe, that it is not likely to prove so beneficial
in

in *hospitals* as to private patients; it being impossible surgeons should visit the former every day, much less dress every bad ulcer with their own hands. Such sores must therefore be committed to pupils, many of whom come to *London*, and indeed too many leave it, possessed of so little knowledge or attention, that whenever any matter must be submitted to their discretion and care, (of which the application of tight bandage is a most important one) it is well if patients do not constantly suffer by it. Not that the plan, indeed, is incapable of very extensive usefulness, even in hospitals and dispensaries, if surgeons would do their part in superintending and directing the pupils, ordering proper rollers, and advising patients to walk, and especially, would they become less timid in their use of the precipitate. As an instance, the author has Mr. *Pearson's* permission to say, that since the winter of 1783, some hundred patients have been cured upon this plan, under his direction, at the *Lock Hospital* and *Carey-Street Dispensary*; many of whose ulcers were very large, some extending nearly round the leg, and of many years standing.

But howsoever the peculiar advantages of this plan may, in any instance, be lessened, it is submitted, with increased confidence, to the
atten-

attention of practitioners of every rank, which the writer feels himself justified in doing, by the best of motives—from the benefit it has afforded to so many poor sufferers since the former edition appeared.

Agreeably to these assertions, he could refer to various other testimonies he has received in the course of the last two years. Out of these, however, he has ventured to select a letter, (not more flattering than many others) which howsoever regarded in respect to himself, he has thought it a justice to the Public to subjoin to this preface. It were unnecessary, it is hoped, to say, that it is presented in the writer's own words, as well as with his consent: and as its compliments would be very lightly esteemed by the author of this work, should their effects only terminate in himself, so shall be any censure to which the publication of them may expose him, should other practitioners be excited to make a like fair trial of a plan, which he is persuaded will exceed their warmest expectations, and ultimately benefit mankind.



DEAR

DEAR SIR,

MY time has of late been so much engrossed by business, that I have not till now had an opportunity of answering the last letter you honoured me with—You wish to know if the same success attends me in pursuing your plan as that I had the pleasure of communicating to you, at the commencement of our correspondence. I cannot say it is the *same*, Sir—it so much exceeds my most sanguine expectation. I have really often been astonished at the *Ease* with which I cure old and large Ulcers of the Legs, by a strict adherence to the rules you have laid down, after they have withstood every other mode I had been previously acquainted with.

It was this continual disappointment that first led me, though prejudiced, *a priori*, against the plan recommended in your Treatise, to give a fair trial to it; and accordingly I took it up early in the summer of 1783.—I have persevered in that plan ever since, and it now constitutes almost the *whole* of a very *extensive* business. And I must declare in justice to you, that in the numbers I have cured, I have never
ob-

observed any inconvenience following the *suppression of a discharge*, that could be in the least attributed to the running being stopped—And having been myself equally *fearful* with other practitioners of the *bad effects* arising from the cure of old ulcers, I have been *particularly attentive* to *this* circumstance, till assured by long experience, that upon your plan, my fears had been groundless; while the Ease with which I have cured ulcerated legs of every kind, and of every period of duration, from one to thirty years, in more than two hundred instances; and the *few relapses* which have succeeded, convince me, (and will, I doubt not, every other practitioner who will give your plan a fair trial) that it is the only one on which the cure of Ulcers of the Legs ought to be attempted.

Wishing you may long enjoy, &c. &c.

I subscribe myself, with the most
respectful esteem,

S I R,

Your obedient,

humble Servant,

T. SMYTH.

C H E R R Y O R T O N,
near Peterborough,
Jan. 11th, 1787.

The

The Reader is requested to excuse and correct the following

E R R A T A.

I N T R O D U C T I O N.

Page 4, Line 7, *Note*, for *ichorum*, read *ichorem*.

T R E A T I S E upon U L C E R S.

Page 60, Line 4, *Note*, for *Foot*, read *Sore*.

Page 62, Line 9, for *on*, read *no*.

Page 74, Line 6, dele *the*.

Page 83, Line 17, for *the*, read *their*.

Page 85, Line 6, from the Bottom, add *and* to the beginning of the Line.

Page 115, Line 5, *Note*, for *except*, read *effect*.

Page 119, *Note*, for 37, 38, read 31, 32.

Page 124, Line 15, for *his*, read *the*.

O n S C R O P H U L A.

Page 24, Line 5, for *it*, read *they*.

O n D I S O R D E R S of the E Y E.

Page 37, Line 11, *Note*, for *sat* read *set*.

Page 39, Line 24, for *increasing*, read *increased*.

O n the M I L K - A B S C E S S.

Page 52, Line 21, dele *of*.

O n G A N G R E N E.

Page 68, Line 14, for *specifics*, read *specifics*.

CONTENTS.

INTRODUCTION.

	Page
D EFINITION, and Causes of Ulcers, in general	2
Peculiarities of Ulcers of the Legs	Page 2 to 3
Obvious Distinctions of Ulcers	4 — 5
Ulcers of the Legs difficult of Cure	— 6
Causes usually assigned for this Difficulty	7 — 8
More rational Account of it	9 — 13
Nature of the Ulcerative Process	14 — 18
Origin of Pus	18 — 21
Process of Ulceration farther considered	22 — 24
Operation of Ulcers on the System, and the Safety of healing them	} 25 — 34

TREATISE upon ULCERS, &c.

Intentions in the Treatment of Ulcers of the Legs	— 35
Modes of Treatment and Remedies in common Use, with their several Disadvantages	} 36 — 48
More certain Plan proposed	49 — 50
Dressings made use of—Objections answered	51 — 56
On Bandage; its Design, Mode of Operation, &c.	57 — 68
	Exercise

<i>Exercise—Its Operation and Advantages</i>	P. 69	to	77
<i>Diet</i>	-	-	78
<i>Medicines</i>	37 — 39. 41 — 44.	79 —	84
<i>Distinctions of Ulcers</i>	-	84 —	85
<i>Symptoms—Inflammation and Pain</i>	-	86 —	93
<i>Old Ulcers must be properly digested</i>	-	—	94
<i>The Plan farther illustrated and defended</i>	95 —	103	
<i>Application to various Ulcers</i>	-	104 —	110
<i>On Healing</i>	-	111 —	122
<i>Second Class of Ulcers</i>	-	—	123
<i>Erysipelatous Ulcer</i>	-	124 —	127
<i>Phagedenic and various large Ulcers</i>		128 —	134
<i>On bracing Applications</i>	-	135 —	144
<i>On Issues</i>	-	145 —	146
<i>Cautions after Ulcers are healed</i>	-	147 —	148

<i>On Scrophulous Ulcers</i>	-	1 —	14
<i>On Disorders of the Eye</i>	-	17 —	38
<i>An extraordinary Case</i>	-	38 —	42
<i>On the Mammary Abscess</i>	-	47 —	59
<i>On Gangrene</i>	-	63 —	77

INTRODUCTION.

THERE are some diseases which derive their importance, not so much from their fatal tendency, as from the pain and uneasiness they occasion. Stationary ulcers in the legs, may be justly ranked under this class. In general, we do not esteem their cure essential to life ; but he who is the unhappy subject of them can best estimate, how much the comforts and enjoyment of it are impaired by them.

A variety of observations might be made on the several peculiarities of these ulcers ; but it is, by no means, the design of this work to intrude upon the reader with theory on the nature of the complaint, any farther than it may be necessary, in order to establish the means of a safe, and lasting cure.

In this view, it will be proper to drop a few words upon ulcers in general, and on some material differences between those now to be considered, and all

A

other

other sores; between recent wounds of the legs, occasioned by some accident, and those made on any other part of the body: some reason there must be, for the additional trouble in healing the former, as well as the greater difficulty with which they are afterwards preserved in that state. This is essentially necessary if we would establish a rational practice, and so far as this end is kept in view, it is hoped, an attempt will not be accounted superfluous.

It scarcely needs to be observed, that ulcers may be occasioned either by every external accident abrading the skin,* or bruising the parts underneath, in a certain habit of body, predisposed to ulceration; or by any internal cause,† exciting such inflammation in a part as shall incline it to suppurate, though no external injury has been received: such are fevers of different kinds. To these should be added neglect, or mismanagement, when an abscess is formed, by which a simple wound is converted into an ulcer, or continual sore of the part.

These are briefly the causes of ulcers in general, and where no specific contagion prevails in the habit, are all that need to be considered.

In those of the legs, indeed, we are farther led to remark the state and circumstances of the limb, which being a depending and an extreme part of the body, may be regarded as a particular and predisposing

* *Ulcus est continui solutio ab erosione facta.*—GALEN.

† *Ulceris causæ vel internæ sunt, vel externæ.*—PAREY.

cause. Its being an extreme part, appears to have a much greater influence than has generally been imagined, or at least expressed by writers on this subject, and tends very much to account for the frequency of the disease, and to point out an indication of cure, which in practice has been entirely overlooked.

But previous to entering upon the cure, it will be proper to make some observations upon ulcers in general, enlarging a little on some peculiarities attending those on the lower extremities.

§ Authors of credit* have usually defined an ulcer to be a solution of continuity in a soft part, discharging a purulent, or ichorous matter.†

But the process of ulceration consists in more than a simple solution of continuity; there is a real loss of substance in the ulcerated part. To obtain therefore a more correct definition, I would be understood to mean by an ulcer, a solution of continuity in a soft part of the body, from which an ichorous, purulent, sanious, or vitiated matter is discharged; attended with a loss of substance in the part.‡

§ This

* HIPPOCRATES excepted, who calls any solution of continuity by that name.

† WISEMAN, TURNER, BELL.

“Partis mollis solutio purulenta, vel ichorosa.” CULLEN.

“Les ulcères sont des solutions de continuité dans les parties molles, avec écoulement de pus.” *Traité des Tumeurs et des Ulcères.*

‡ SENNERTUS and HOFFMAN give nearly this definition—“Ulcus dicitur solutio continui cum imminuta magnitudine, in parte

§ This character may be very applicable to ulcers in general, and be quite sufficient as a diagnosis ; but many important distinctions are to be attended to, which must have considerable influence in the treatment. It will be sufficient, however, to hint at a few of them.

I. An ulcer may be simple, arising from external causes merely.

II. It may be the consequence of, or be connected with a bad habit of body ; or,

III. It may be owing to some specific contagion.

IV. The situation also of ulcers deserves our attention. They may affect the surfaces of parts, in

molli, a materia erodente ortum habens. Differunt nimirum in eo vulnus et ulcus, quod in vulnere saltem est soluta unitas, nihil vero necessario de parte amissum est ; in ulcere vero semper aliquid de parte affecta imminutum et amissum est, si non plus, saltem cuticula." SENNERTUS : *lib. 5. pars 2.* "Sunt autem ulcera partium solidarum, atque mollium cum cavitate quadam minori, ichorum tenuem, falsum et acrem fundente, dissolutiones et erosiones a fero extravasato, et corrupto originem ducentes." HOFFMAN, *cap vi. § 1.*

It is evident however, that HOFFMAN, SHARP, and some later writers, design moreover by an ulcer, an old, or ill-conditioned abscess ; and there seems to be some reason for this distinction, if we would speak with precision ; for otherwise, every imposthumation, when burst or opened, as well as every wound after an operation, is equally an ulcer—HOFFMAN's words are, "Differunt ulcera ab abscessibus, tum in hisce major, quam in illis deprehenditur cavitas, atque non tam sanies aquosa, falsa et acris, quam potius pus laudabile, bene coctum à sanguine, in partibus musculosis stagnante, et mora corrupto, gignitur ; licet negari minime poterit, ulcera sæpe ex apostematibus oriri, quæ in principio meri fuerunt abscessus." § 2.

the manner of an erysipelas ; or partake more of the nature of a phlegmon, by being seated in the substances of parts.

But it will be necessary in this place to remark other distinctions, noticed by the best writers.

I. An ulcer, it has been said, may be of such a species, that it will not admit of cure.* This, however, cannot often be the case, and belongs not to the present intention.

II. The ulcer may arise from, or be accompanied with such a peculiar state of the constitution,† that the patient may be unable to undergo such a discipline, as will be absolutely necessary to its cure.

III. A patient's state of health, or peculiar circumstances in life may be such, that the injunction of confinement and a recumbent posture cannot be complied with.‡——The present inquiry will be more immediately directed to the treatment of ulcers occurring under these last-mentioned circumstances ; and as the lenient method is generally enjoined with an horizontal position of the limb, they will both respectively fall under consideration.

§ Ulcers troublesome in themselves, or of long standing, are very often brought into a healing state, by mild means, and absolute rest, where no cachectic disposition exists.|| If the patient after this should

* Cancerous, &c. “Ulcera Hydropicorum vix imo ne vix curantur.” HIPPOC. *Lib. vi. Aph.* 45.

† SHARP'S Surgery. *Introduct.* page 29.

‡ *Ib.* page 38. — || *Ib.* page 31.

live freely, or use much exercise, it is highly probable the sore will break out again. In such a case, it may be said the person has been cured, but he is not restored to society. A very natural inquiry suggests itself here, viz. Is this the only rational method of treating such ulcers?—If it can be proved, that a strict course of regimen is generally unnecessary, and that absolute rest is often not only needless, but prejudicial; if it can be demonstrated, that by a different mode of treatment, they may be as certainly, and often as speedily cured, and without danger of relapse; it becomes a subject highly deserving the attention of every practitioner.

§ It has been observed, and long been a decided opinion, that wounds or ulcers, situated on the lower extremities, below the knee, do not generally heal so kindly as those on the upper parts of the body.* Various reasons have been assigned for this last mentioned fact; and as principles are more or less connected with practice, it will be very proper to glance at this subject, which will bring forward the immediate object of inquiry.

These extremities being depending parts, a stagnation of the circulating fluids has been offered by some as an explanation; whilst others have attributed it to a descent of depraved or vitiated humors.†

It

* It is a maxim in surgery, that abscesses and ulcers will have a greater or less tendency to heal, as they are higher or lower in the body. SHARP'S Surgery. *Introduct.* page 17.

† See WISEMAN, TURNER, SHARP.

GALEN. *De Ulceribus malignantis Naturæ*. "Talia enim appello,
in

It is ever of the utmost consequence, to separate facts from hypotheses. Our knowledge is actually increased by the one; we are not certain gainers by the other. Effects are obvious to every attentive observer, but causes are often latent and dubious.

The first theory cannot be admitted; as its proximate cause is, by no means, a constant attendant on fore legs: Œdema sometimes precedes, sometimes accompanies, and often seems to be a consequence of ulcers, but is only one evidence amongst others, of cachexy.

The second enumerated cause stands merely on an hypothetical basis. 'Till we get more distinct ideas of what is meant by vitiated, or depraved humors, and have their existence demonstrated, it ought not to be admitted as the occasion of the difference in question; especially as this difference is capable of being very considerably lessened, merely by topical applications and exercise, as will be shewn in its proper place.

§ Without presuming absolutely to remove the difficulty, a few hints on the subject may not prove unworthy of attention.

in quibus aut pars affecta tam vitioso habitu est prædita, ut vel optimum sanguinem, qui nutritionis gratia confluit, corrumpat: aut id quod influit, adeo perversum existit, ut etiamsi pars rectè se habeat, ab ipso tamen solo erodatur." (*De comp. med. lib. iv.*)

AMBROSE PAREY, on the cacoëthic ulcer, copies after *Galen*: "influentem corrumpit humorem," (says he) and on the cachochymia—"propter influentis sanguinis, partem exedentis, pars affecta nimium humida non coalescit." *Lib. xii. cap. x.*

I. The living power of the animal exists in greatest quantity nearest the heart. In proportion to the different distance of parts from this centre of life, the circulation of the blood is more languid, the animal heat is at a lower temperature, and the animal functions are more liable to interruption. But the healing powers depend greatly on the general, or relative vigor of the system: if therefore, the vital energy diminishes, at a distance from the centre, shall we be surprised to find, that the *vis medicatrix* (which owes its salutary power to the same cause) is diminished likewise?

II. In the lower extremities there is diffused much tendinous or ligamentous membrane. This kind of substance, though not void of sensibility, possesses a very small share of it; its blood vessels are scarcely visible unless rendered so by disease, and in that state it acquires a high degree of irritability. The structure of the parts therefore, may in some cases, have considerable influence in retarding the cure of ulcers. And perhaps the depending position of the limbs, though not sufficient of itself, may in some degree co-operate with other causes in producing the evils complained of.

When an ulcer on the lower extremities, tolerably free from inflammatory symptoms, and unconnected with cacoëthic, or specific affection of the system, becomes intractable under the most prudent management, it is highly necessary to know the cause: Inquisitive men have, indeed, assiduously investigated it, but to how little purpose, the success, or rather the
want

want of success in general practice, too evidently demonstrates.—I have ventured to suppose, that the most probable cause is a defect of vital energy, either general or local. If general, which it is of importance, indeed, to determine, and an atonic state of the system prevails, that plan must be pursued, which is most likely to produce a state of general strength; but if the cause be merely local, our views must be very different. It must then be treated as a diminution of action in the part. Not that it is meant to suggest, that those two causes cannot exist together; they very often meet in the same subject. But it is proper to observe, that they may, and often do exist separately. Nor are we to conclude, that because our treatment has a tendency to strengthen the patient, the desired end will always be obtained. There may be a sufficient quantity of power in the constitution to overcome a disease, though that power be not fully exerted. It is often necessary to rouse nature to action, by the external use of stimulants. But in doing this, it will be well to observe, that as we have a certain end in view, our means must be adequate. Stimulating applications may be so used, as to fret or irritate the part, without the least good effect, nay, with very bad effects. If the power and action of the part be not rendered superior to the disease, every ineffectual effort of nature will increase it, and consequently retard the cure.

Perhaps, the irritation arising from motion, may in this view, be accounted one kind of hurtful stimulus, when applied to ulcers on the lower extremities. A
person

person affected with this kind of sore, though he should not entirely confine himself, will be disposed to walk less than usual, and to give the leg some little indulgence. The stimulus, thus irregularly applied, excites the vessels to an increased action; pain becomes considerable; the surrounding parts are inflamed; and the discharge is increased.—He rests.—Nature was making efforts to give a new surface to the ulcer, but the stimulus which excited her to action being withdrawn, her attempts are partial and ineffectual. And as more or less of loss of substance, always precedes the shooting of granulations, perhaps only the first part of the process is completed; hence the ulcer is more foul, is deeper, and more extensive than before. All these evils are attributed to the motion of the part, and absolute rest is deemed a necessary requisite towards obtaining a cure.—Whether this be as evident as it hath been generally imagined, is a matter very much to be doubted indeed, and is worthy of farther inquiry.

§ It appears then to be rational, as well as agreeable to experience, to suppose, that, neither the only nor yet the chief obstacle to the healing of ulcers can arise from the legs being depending parts of the body, but as hath been observed, from their being extreme parts, where the circulation is least vigorous. Hence it is, that the complaints of younger people are chiefly confined to the head and upper parts of the body, which at a more advanced age usually affect the lower; and it frequently happens, that such as have had disorders of the eyes when young, are afflicted with fistulæ in
ano,

and, or forelegs, when they grow older; the circulation of the blood through the more extreme parts, and their consequent tone, being then impaired: and every surgeon knows how much more frequently a gangrene is found to seize the feet or the toes, than any other part of the body. For although the fingers, with their vessels equally small, are at a considerable distance from the heart, yet the circulation in them is more vigorous, both on account of their vessels coming from the beginning of the aorta, and the continued exercise from their more constant use. The lower extremities being still farther distant, and not so much engaged, have these disadvantages compensated by the exercise nature has imposed upon them, in the support and conveyance of the whole body; for the want of which necessary stimulus, in indolent and sedentary people, the circulation becomes too languid to preserve their due tone. From this cause, as well as from the anatomy of their parts, it is easy to account for the swelling of the feet and ancles, so common in such persons, as well as for that which happens from the limb having been kept, for any length of time, in an horizontal position: for here, whilst the *moles movenda* is great, the *vires moventes* are diminished. It is therefore presumed, that exercise being so necessary to support general health, and particularly the vigor of the extremities themselves, is so far from being positively detrimental, that under proper management, it must prove conducive to the healing of ulcers situate upon them. Hence it will appear to be the province of art, to devise some proper

per means to regulate the effects of exercise, rather than to aim at a cure some other way, by subverting the order of nature, and depriving the patient, for a time, of a necessary mean of supporting, or recovering his health; which pernicious custom, it is presumed, is one principal occasion of the difficulty in question.

It may be necessary to pause here, to take some notice of certain objections made to this mode of reasoning, particularly by the *Editors* of the *Critical Review*. It should seem, that some of their strictures have arisen either from my having expressed myself inaccurately, or from some mistake on their part; or it is not likely they would have adduced the instance of the division of the sacro-sciatic nerve of a frog, in opposition to the theory I had ventured to advance. By this instance they would intimate, that great nervous energy is not so necessary in order to the healing of ulcers on the lower extremities, as I am supposed to have imagined; and that “my theory is therefore fallacious, and the consequences drawn from it, erroneous.”

I shall not stop here to make any remarks on the cold blood of this aquatic, as rendering it an improper instance for illustrating the subject in dispute, but shall only point out what my position has uniformly been, viz. that the circulation of the blood in the lower extremities is too languid for the purpose of due incarnation, and the speedy healing of sores seated upon them. That such a languor actually exists, besides a variety of other evidences, is demonstrable

strable from the vast coldness of the feet and toes of people of a delicate habit, in whom, indeed, they are seldom warm but in the hotter months. The fact is certainly incontrovertible, the *vis vitæ* is actually less than in superior parts; and wounds occasioned merely by accident, and under every favorable circumstance of age, constitution, &c. and brought into a good state, are found to cicatrize more slowly than on other parts of the body: whilst no wound heals so soon any where as on the head, let the natural constitution be whatever it may. As to nervous influence, which the objection alludes to, there may be enough of it, of a certain kind, for any thing I know, and perhaps often more than we wish for; no sores being more irritable than those of the legs. And if I have appeared to intimate, that the lower extremities are enervated, it was intended in such a sense only as to denote their atonic state, for want of a due *vis vitæ*, a fact not to be denied; and I have no doubt, has for its cause the languid circulation in the parts. This, as well as every other instance of the animal œconomy is, indubitably, wise and salutary on the whole, though it will not follow that it is conducive to the healing of ulcers so circumstanced; and will serve to illustrate the propriety of a measure of that exercise which nature has evidently designed the legs to sustain, and which is so much insisted upon in the course of this work.*

§ The

* The idea of a defect of vital energy in the part, has lately met with farther support from experiment, or rather from facts; which

§ The nature of the ulcerative process next deserves our consideration. When from some cause, external or internal, ulceration takes place, a very usual way of accounting for this solution of continuity has been, that there is a melting down of the soft parts into pus, fannies, &c.* Experiments on dead and living subjects have been made to prove this; yet it is apprehended, this process never takes place in the living body; it is a process that contradicts every thing we know of the animal œconomy, and the observations of the most accurate physiologists.

The perfect solution of a soft part, even when removed from the body, is not easily affected by art, unless

which being ascertained by a gentleman in no wise concerned in this dispute, may; perhaps, have more weight than if such experiments had been made merely under my own eye.

MR. PARTINGTON did me the honor of informing me, that as soon as he had perused my treatise, he tried the effect of electricity upon ulcers of the legs, scrophulous sores in the neck, and upon chilblains, whilst they were under the care of surgeons of eminence: and that both they and *Mr. Partington* were satisfied of its good effects in expediting the several cures, in consequence of its local influence and stirring up the vires medicatrices in the parts. Upon the same principle, I apprehend, it has been found successful in many cutaneous diseases, improperly ascribed to acrimony, and other obscure qualities prevailing in the system, which are rather owing to a diminished vital energy, or to a morbid action, in the part.

* “*Vascula distenta rupta cum dolore, calore, pulsu, liquores suos effundunt, solvunt, putrefaciunt leviter, solida tenera atterunt, solvunt, fluidis miscent in unum similem album, spissum, glutinosum, pinguem humorem, pus dictum.*” BOER. *Aph.* 387.

“Pus or matter is certainly no natural secretion.—I believe I may

unless it be immersed in caustic liquors, much less have we ever seen muscular flesh, and cellular membrane converted into a fluid resembling pus. Simple division of a living fibre does not necessarily produce the death of that fibre; but decomposition, either by the putrefactive fermentation, or by art, never can take place without depriving the affected part of its life. Moreover, as the purulent matters discharged by ulcers, differ in their chemical properties from dead animal fibres in a state of dissolution, we are certainly not authorized to conclude, that there is a similar arrangement of particles. Besides, we ought to find the most profuse discharge from an ulcer during the exfoliation of its sloughy covering; whereas the reverse of this is really the case: an ulcer never pouring out so large a quantity of good matter, as during a few of the first days after its surface has become clean. And every practitioner must recollect having seen cases, where the dimensions of an ulcer have been increased to twice its size, in the space of a few hours, without such a proportionate increase of the discharge, as we ought to expect under the idea of dissolution.

The process of ulceration seems to be a certain act of the absorbent system, whereby in consequence of a stimulus, it takes up the soft parts, and carries them

may venture to affirm, that the dissolution of some of the solid particles of broken capillary vessels, and a mixture of some part of the juices that should circulate through them, makes a necessary part of the production. MR. POTT. *vol. i. p. 315.*

into

into the circulation.* No anatomist can doubt the possibility of this, when he considers, that ointments, and even powders are readily absorbed, especially where there is a want of cuticular covering.† If this account of the matter be admitted, we shall be assisted in understanding the cause of the rapid progress of ulceration, the exfoliation of dead soft parts, and desquamation of carious bone.

Since this tract first appeared, it has been objected to this idea of ulceration, that it is a doctrine as yet by no means established, and although there certainly doth exist in the animal body a power of absorbing its own constituent parts, yet it cannot be proved that this absorption is always attendant upon ulceration; nor is there any reason that prevents us equally from supposing that ulceration may be the effect of some external corroding power, the nature of which is unknown to us.

Such an observation certainly deserves a serious attention, and I do not know that any thing I have advanced is directly inconsistent with it. I pretend to no great physiological knowledge, and never intended to insist upon the extent of the absorption to which I have alluded, or have attempted to prove that it always takes place in ulceration; I have only

* Physiology, I believe, is indebted to the ingenious Mr. HUNTER for this no less probable, than curious idea.

† See Mr. CRUIKSHANK's letter on the absorption of calomel, to whom the world is no less indebted for his indefatigable attention to, and useful discoveries in the absorbent system.

contended, that the idea of *Mr. Hunter* (as far as I have adopted it) appears to me truly ingenious, and far preferable to that of parts being melted down into pus; against which, at least, I imagine some arguments are advanced that will not easily be overturned.

It is very probable, indeed, that the animal juices when extravasated, may acquire such an acrid quality in a diseased part, as may destroy that cohesion of parts necessary to their life, and may so change them that very little of them may be seen; though the whole of them may not be taken off by the absorbents. It is certain, that the constituent parts of animal bodies when reduced to their first principles, are but small in quantity, and when the body is so reduced by putrefaction after death, the quantity of earth and water is but very inconsiderable. But whatever analogy to this putrefactive principle the juices may acquire during life, so as to be capable of mutilating the parts, it will by no means follow, that they are so changed as to be turned into pus; for not only is the dissolution here spoken of, the effect of disease in the juices, but is such as must reduce the parts to their first principles, at least in a considerable degree, and exists only in a foul and bad state of the sore; whereas the formation of pus, especially of laudable matter, depends on the healthy state of an ulcer, and is usually an indication of a favourable issue. So that, whatever corroding power there may be, whether internal or external, it can, by no means, account for the kindly suppuration of abscesses and ulcers, where the parts are supposed to be melted down into

pus. An idea, as I conceive, unbecoming a thinking mind, as it supposes something utterly unlike every thing else of which we have any probable evidence in the animal œconomy; and which was, indeed, the chief matter I intended to controvert, and must still think, is far less probable than that act of the absorbents, conceived of by *Mr. Hunter*.

§ But this idea of ulceration suggests a very natural inquiry, viz. From whence comes the purulent matter discharged by ulcers? It has been said, that ulcers are drains to carry off peccant humors;* or dissolved cellular and muscular substance; † we have been told, indeed, that pus exists in the blood, and is poured forth at these outlets.—The last-mentioned idea is in itself so improbable, and standing unsupported by any decisive proofs, it may be regarded merely as hypothetical.—A few remarks on the former will naturally arise in the farther discussion of the subject.

* “Ulcers may be looked upon as drains which nature has made choice of to relieve herself.” *LE DRAN*.

† “Pus is a mixture of various ingredients, viz. blood, which has lost its red colour, and is the largest ingredient in the mixture; a little viscid lymphatic juice, and the extremities of the lacerated vessels, which fall off in small parcels, and are converted into a softish and whitish kind of glue.” *FIZEZ, On Suppuration*.

“Si sanguis in ventrem effusus fuerit, præter naturam, necesse est ut suppuratur. *HIPPOC. Aph. xx. Lib. 6.*

“Hac enim parte caro putrescit et exulceratur, et accedentem pituitam et bilem, insuper putrefacit, et fit pus.” *Id. de Morbis. Lib. 2.*—See also *CULLEN*.

“The

creted in the form under which it appears, but it is probable, that when it covers the surface of a wound, under the appearance of an adhesive glairy fluid, the only difference between this and white pus consists in the quantity of superfluous water : when, by remaining for some time upon the part, the thinner fluid is absorbed, or exhaled, the remaining part assumes opacity, and acquires a thicker consistence; * for if wounds, furnishing a great quantity of good pus, are

particular purposes. The mucous membrane, which lines every cavity exposed to the action of external air, secretes a fluid called mucus, for the defence of that part, &c.—This, in a healthy state, is mild and inodorous, and much resembles the white of an egg, being perfectly insipid ; and consequently, can be little more than a mucilage and water. Whereas serum contains neutral salts in abundance ; such mucus therefore cannot be effused serum. If it were merely serum, it would be more irritating as its consistency increased, the reverse of which is the case. When morbid secretion takes place, as in catarrh, gonorrhœa, &c. the effects of the neutral salts in the serum poured out, are pretty evident. Now, these diseases cannot increase the quantity of saline matter, consequently, we must seek for the cause of this acrimony in the different action of the vessels.—These variously excited, by external or internal stimuli, to irregularities in their action, may likewise assist us in our inquiries after the cause of the various appearances and qualities of pus, and of the difference between that and such morbid secretions from an inflamed surface, as assume a purulent appearance.—With regard to the latter distinction, it may be worthy the consideration of physiologists, how far the *simple inflammation* of a surface, may possibly be inadequate to the production of true pus ; and whether an *erosion*, or *loss of substance*, may not be essential to that particular secretion.

* SIR JOHN PRINGLE. (*Appendix.*)

examined

examined a few hours after being dressed, no such matter as pus will appear, but a thin, ill-looking sanies is spread over the surface.*—Indeed, the formation of true pus, and the putrefactive fermentation of animal substances, bear no resemblance to each other, since pure pus is perfectly inodorous, whilst the other emits a volatile alkali. Nor do we find, that matter discharged from a wound bears any regular proportion either in quantity, or quality, to the supposed degree of fermentation. If we only attend to the different aspect of an ulcer, when it produces pus, ichor, or sanies, whether we reason analogically, or from evident appearances, the idea that has been thrown out, of the healthy or morbid action of the vessels, as the most probable cause of this difference,† appears, by no means, to be an unreasonable conjecture. In support of this theory, however, I shall

* From hence, a fallacy may be discerned in the ingenious theory of the late *Mr. Freke*, though it is a much more rational one than that of concoction, or what is usually meant by fermentation. He humorously observes, if it can be shewn, that any part of the blood, put into a sand heat, and digested there, or that decocting it ever so long, produces any thing like laudable pus, he will give up his theory, viz. that pus is produced by despumation, or agitation, from the serum of the blood passing through the partially obstructed extremities of divided, or ruptured vessels, which like a sponge, resisting a free passage to the globules of air contained in the blood, beats up the serum in its passage into a froth, just as soap and water would be by a like agitation.—ART OF HEALING.

† See MR. BELL's last edition of his *Treatise upon Ulcers*.

mention one fact that may merit some attention ; viz. that not only by medicines, but by mere external applications, it is frequently in the surgeon's power to alter both the appearance, and the quantity of matter discharged from a sore, as every man of any experience must often have had occasion to observe.

But, the idea of true pus being a dissolution of the muscular and cellular substance, &c. may, in another point of view, seem to demand a little farther attention. In support of this opinion, we are told, that in every collection of matter, there is actually very considerable loss of substance in the part, and for proof of it we are pointed to the cavity from whence the matter has flowed, on the bursting, or opening of the abscess, and to the disappearance of the cellular and adipose membrane ; the greatest part of which, however, seems only to be condensed. To examine this point a little more narrowly, let us take a view of it where the fact ought to be the most evident, as in the case of large imposthumations, such as the psoas abscess ; from whence a pint, or more, of matter has run out on the spontaneous giving way, or artificial opening of the integuments. In such cases, has there been a destruction of muscle, vessels, cellular and adipose membrane, equal to the quantity of pus, or the cavity that is formed ? What ! a pound * of muscle and adipose membrane destroyed ? A bulk,

* Experiments on living animals have lately been made to support such an opinion.

equal to a pint, or more, of matter?—We may, indeed, find the muscles separated one from another, and the cellular membrane torn away by the weight of the fluid; or sometimes a muscle divided longitudinally, or its belly eaten through; but the idea of a whole pound of organized parts being lost, or melted down into matter, is really much more improbable than any thing that has been advanced concerning the formation of pus, or doctrine of the absorption of parts into the constitution. For whatever has been said on the latter, is merely to account for a loss of parts, which sometimes actually disappear in the process of ulceration; but the former opinion supposes a quantity of parts to be destroyed, (in order to account for excessive suppuration) where there is no such manifest disappearance. Moreover, in large collections of matter, there is not only a prodigious discharge on the first bursting of the abscess, but it often continues immoderate for days, and even for months, till the patient is destroyed by it: yet upon opening the body, only a very small portion of muscle appears to be lost, and there is little, or no more deficiency of adipose membrane in the part, than throughout the rest of the body; the whole of which, in such cases, is exceedingly emaciated, and the fat supposed to have been absorbed. To sum up the whole, it appears, that in the former instance of the sudden spreading of an ulcer,* the discharge is, by no means, proportionate to the

* Page 15.

great loss of parts ; and in the present, there is not a loss of parts proportionate to the immoderate discharge.

But it is said by others, that there is not, indeed, so great a dissolution of solid parts, as to furnish the whole of these purulent matters, but so much of them is melted down as gives tenacity to the fluid ; and is an essential ingredient in true pus.* Besides what has been already advanced in answer to this latter assertion, it may be observed, that wherever there is an evident admixture of fat, or of the crassimentum of blood, or the parts are in a lax and sloughy state, the pus is never good, but always thin, discoloured, or fetid. Whereas, when the surface of an ulcer is firm and florid, without the least appearance of the melting down of parts, (as it is called) there, it has been observed, the pus is thick and good ; there only is it *album, læve et æquale*.

Moreover, if the dissolution of organized parts, does not furnish a very considerable portion of the purulent discharge, it can supply only a very small part of it, and is rather an accident, in particular instances, than a necessary ingredient in true pus. This, I think, may be sufficiently manifest from what has been said above on the state of the parts, as they appear in those who die of an atrophy, in consequence of very large incurable abscesses, as well as from the foul state of every sore, and the impurity of the pus,

* BOERHAAVE, Mr. POTT, &c.

whenever there is an admixture of fat, or of the crassimentum of the blood. And if so little of the pus can be furnished by the dissolution of solid parts, and its true purulent appearance be not occasioned thereby, the difficulty is not removed, and the question returns, viz. how is pus formed?—a question I have attempted to answer, and it is hoped, in a manner, that for any thing that has yet been advanced to the contrary, may appear more satisfactory and rational than any other account that has been given of the matter.

§ When the constitution has, at a certain time of life, been long accustomed to the presence of an ulcer in some part of the body, practitioners have been much divided about the propriety of attempting a cure. It has been deemed improper to heal it, without substituting a drain in some convenient part, in its stead.* This opinion is founded partly on theory, partly on observation. If we regard old ulcers as drains, or outlets for vitiated humors;† the evacuates of a considerable quantity of fluids, where retention must disorder, or overload the system, and induce plethora, ‡ &c. such ideas must naturally pro-

* See MR. BELL, *On Ulcers*, who thinks Issues in all cases indispensable; of which sentiment farther notice will be taken.

† A mesure qu'on travaille à guérir l'ulcere, il faut avoir soin d'ouvrir un cautere à la partie qu'on jugera le plus convenable, pour donner aux mauvaises humeurs un épanchoir à la place de celui qu'on va boucher. *Traité des Ulceres, &c.*

‡ MR. BELL.

duce a doubt of the expediency of effecting so important a change : and facts are not wanting to prove that disagreeable, and even fatal consequences, have followed the drying up of long continued ulcers, and even of issues. *—But though the facts cannot be denied, the explanation given of them may be called in question. † We know, that in many cases, very suspicious a priori, ulcers have been dried up, not only without bad consequences, but where very considerable advantages have ensued. Whereas, fatal accidents have sometimes taken place after the cautious healing of more recent sores in apparently good habits of body, which would scarcely have been attributed to such cures as to their proper cause.—The *post Hoc* and *propter Hoc*, it is well known, require a judicious discrimination.—Where, indeed, there has long been a very profuse discharge of matter, a cessation of the accustomed evacuation may have some influence. But if particular cases are excepted, it is more than probable, that the effect of ulcers upon the constitution, is not to be imputed to the Quantity,

* Le DRAN's Observations—SHARP's Surgery, *Introduction*.

† Ulcera diuturna et inveterata non sine periculo curantur, nisi corpus diligenter purgetur, et victus ratio bona observetur ; cujus rei exemplum habet *Gal. Fabricius*, de quodam viro qui cum ulcus inveteratum in crure sinistro ab empirico ἀπειθόδως curatum fuisset, post menses aliquot pleuritide in sinistro latere correptus, atque inde mortuus est, et morbo durante *talia* expuit, *qualia* antea ex ulcere effluere solebant.

SENNERTUS, *Lib. v. Prognostica*.

much

much less to the Quality of the matter discharged by them; which it is likely, depend on the state and action of the vessels of the part, where, at least, there is no specific contagion. No opinion is more popular than the existence of humors in the blood; and perhaps very few opinions have less foundation in fact. The serum of blood may differ in consistency, and contain more or less saline particles; the red globules may exist in greater or smaller quantity; the coagulating lymph may vary in its relative proportion to the watery parts of the blood—if we advance much farther, we are treading merely on hypothetical ground.

Nor are we warranted to conclude from observation, that Quantity ought to influence us much more in the healing of ulcers. This has, indeed, been strongly asserted by many, and is urged by *Mr. Bell* in the last edition of his Treatise upon Ulcers; but it is apprehended, without any appearance of argument—Let us inquire into the fact—Are the effects of ulcers upon the constitution, by any means, proportionate to the quantity of matter discharged by them? Nay, do they not more commonly take place in people of a spare and thin habit, and those of a lax fibre, rather than in the athletic, and such as are subject to plethora? And do we not see, that the species of ulcer, and its seat, very often determine its harmless, or mischeivous tendency? Whatever may be the habit of body, were we always to form our prognostic of the termination of ulcers, from the quantity of
surface

surface they occupy, or the fluids they discharge, every day's experience would prove the fallacy of such an indication. Small ulcers, (unattended with caries of the bone) may bring on hectic symptoms, and the amputation of the whole limb shall save the life, and restore the health of the patient.

It has been observed by the *Editors* of the *Critical Review*, in their remarks upon this tract, that they have seen “both asthma and Palsy repeatedly brought on and cured, by healing an old ulcer and again opening it; nor would any remedy prevent the recurrence of these dangerous disorders or cure them, without restoring the usual discharge; and from the very same part.”—I feel myself indebted to every reader who may state objections in an open and candid manner, especially when they relate to matters of fact, as in the present well-chosen instance. But, I imagine it cannot be a presumption to suppose, that such instances are very rare, and can therefore operate only in a way of general caution. As to the more common evils which may have followed the healing up of fore legs, it has been observed, that they cannot all be attributed to the cure of the ulcer, though it is possible some of them may. But this, as has been said, is an effect, by no means, peculiar to the cure of fore legs; and I am certain, for I speak from experience, is seldom owing to the *cure*, but to the *improper manner* in which the healing has been accomplished; whereby the vessels of the part are left under a certain distempered state and morbid action, which terminates

nates either in a new ulcer, or irritates the system : effects that can very rarely follow a proper digestion and due cure of the fore. And this is a circumstance of such importance in regard to fore legs, that if properly attended to must, sooner or later, induce surgeons to adopt the plan now, upon due reflection and experience, again commended to their notice ; and will, I hope, eventually prove a lasting benefit to society, when I can no longer have an interest in it.—But to return from this little digression : it is *general* doctrines that good practitioners will have regard to, and the safety of healing old ulcers on the legs, is mentioned as such ; and as a *general* doctrine, I may venture to support it both from reason and experience. Nor do objectors, I imagine, design to prohibit the cure of them on every occasion, in the fear of asthma, palsy, or any other chronic complaint. Particular exceptions there, doubtless, are to every general rule, and with which men of practice are very well acquainted, and to which they will cautiously attend : though by the bye, surgeons are continually attempting the cure of old ulcers on the legs in every large hospital, just as readily as if no kind of bad consequence were ever to be apprehended ; and when they fail of success, are nevertheless in no fear of inducing an asthma, by removing the salutary ulcer, at the expence of the limb. As to the peculiar objection to healing *old* ulcers, there is a deal of fallacy in the circumstance of the length of time an ulcer may happen to have subsisted, and particularly with regard to
poor

poor people, in whom it often becomes stationary merely from their necessitous situation, which deprives them of the best means of relief; to which may be added, their not being in a capacity of complying with the mistaken notion of the necessity of rest,* which has proved eventually the occasion of
more

* An anonymous writer, who lately suggested his thoughts on ulcerated legs, with a view to lead surgeons to investigate the subject, justly claims from his candour a title to notice, especially from me, for the polite mention made of the plan I had recommended, which was then but just published. And it is with pleasure I can assure this gentleman, that the treatment of sore legs is now a matter taken up in different parts of the kingdom, and with a success that has served amply to confirm the practice I had suggested. Every fresh instance has demonstrated the propriety of the idea I threw out, as to the occasion of the difficulty of the cure, and the means of removing it, as well as of the futility of attempting it upon the lenient plan, which, as this writer observes, either fails in the first instance, or the sore often breaks out again. In farther confirmation of this sentiment, I would remind this candid inquirer, that much more powerful applications than yellow basilicon are required to bring ulcers into a good state, which once effected, dressing them with a mild digestive will not keep them open, (as he has suggested, in cases where he apprehends they ought to be preserved as issues,) unless it be from its not being sufficiently active; and not from its stimulus. Let the pea be taken out of an issue, and the ulcer dressed with yellow basilicon; or a perpetual blister be treated in like manner, and they will neither of them be long kept open; whereas, common blisters are sometimes difficult to be healed; and every practitioner must have known them continue open for two or three months, in spite of every attempt to the contrary, especially in teething children; though here, it is acknowledged, the evil is not local. This writer's

more amputations, than almost all the injuries from violence and accident, which usually attend the lower classes of mankind.

§ The ill-effects which ulcers have upon the constitution depend, it has been said, on the circumstances and situation of the sore, and seem to arise from irritation, and the consequent general state of excitement into which the system is thrown. When the discharge is very profuse, inanition is produced; but simple inanition is not a proximate cause of hectic fever, nor of symptoms of irritation. * The system being kept in a perpetual state of tension, by the constant stimulus of an ulcer, and nature fruitlessly exhausting herself to subdue an obstinate disease, will sufficiently account for that train of ill symptoms, which sometimes accom-

ter's idea may, however, serve to exemplify what pains are taken, upon the lenient plan, to compel ulcers of the legs to dry up, when the light stimulus of a mild digestive is supposed capable of keeping them open.—We cannot therefore infer, from some complaints succeeding to cures effected in the ordinary way, that there can be no safe way of healing old ulcers; nor learn from such practice, when, or by what means they may be salutary, or injurious to the habit.

* Wounds of the tendons, ligaments, cartilages, and the cavities of joints, are more liable to be attended with symptoms of irritation, than the inflammation of other parts: by such symptoms therefore are meant, great depression of strength, anxiety, frequent respiration, quick and small pulse, a tendency to delirium, or spasmodic affections of the muscles. These symptoms do not indicate a disease of the general system, but depend upon the presence of an irritating cause; and when the cause is removed, the effect immediately ceases.

panies ulceration. †—But though stimuli, in certain habits, and under certain circumstances, may prove detrimental to health, yet in many instances, we find them excellent remedies. The good effects of blisters and caustics, applied near the seats of diseases, are generally known; yet we do not suppose, that there is any specific virtue in cantharides, neither do we regard them as the evacuants of vitiated humors. It is a fact pretty generally admitted, that however plentifully a blistered part may pour out its serum, it is often more advantageous to heal the sore, and apply a fresh stimulant, than to keep it open by mild digestives. If the good effects of blisters, therefore, be admitted upon these principles, why reject this reasoning in the case of ulcers, which may not improperly be termed perpetual blisters or issues?

The effects of ulcers upon the constitution in general, being thus hinted at, the main question may be resumed, viz. Is it always proper to attempt the cure of ulcers? Were a general and direct answer to be offered, it might be given in the affirmative. Should a case occur (which is not improbable) where upon the whole, it may be judged a less evil to suffer the ulcer to remain, than to attempt its cure; yet if its extent of surface be very considerable, it will be prudent to lessen its dimensions. To this may be added,

† Natura enim, semper sollicita est in conservatione individui sui, morbisque sese opponit; sed prout valida aut imbecillis fuerit, aut victrix evadit, aut succumbit. HILDANUS, *Observ. Chirurg.*

that as the seat of an ulcer, however small, may be in a very inconvenient part of the body, a large issue * may, in many cases, be substituted in its stead;† which if this reasoning be valid, will much oftener than it is imagined, have the same good effect. Whether, therefore, we regard the operation of ulcers as a drain, or as a stimulus to the system, there can seldom be any reasonable objection against healing them.

The preceding observations are natural, they are founded on facts, and it is hoped, they will support the inference intended to be drawn from them. Many of them almost insensibly occurred to the author in the course of his practice, nor did he discern half their force, till repeated experience constrained him to attend to them, and forced on his mind such reflections as led to support them. Be it observed, however, once for all, that success preceded his reasonings, and though he should have failed in his theory, the facts stand unaltered, and every man will find himself at liberty to prefer his own illustration of them. He concludes it, indeed, far safer, even industriously to

* In all these cases, it is proper to purge once or twice a week with calomel, if the patient can bear it, and to make an issue when the sore is almost healed. SHARP, *Introduction*, p. 40.

† LE DRAN, BELL. The latter has some observations tending to prove, that the discharge from a common issue is usually much greater than is generally imagined.

invent a specious theory in support of experience, than to found a practice on mere metaphysical reasonings, however ingenious they may seem. If he has erred, he has erred on the safe side, and again cheerfully submits both his principles and practice to the judgment of others.



A
T R E A T I S E

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U L C E R S of the L E G S.

IN the treatment of ulcers on the lower extremities, it has been esteemed of the utmost importance, to consider the sore in a peculiar connexion with the general health of the patient. In this view, it has been judged sufficient to bring some ulcers into an easy, harmless state; whilst others, from their long continuance, magnitude, or advanced age of the patient, have been thought incapable of cure. But where none of these impediments may occur, surgeons, nevertheless, differ very much about the most safe and rational means of accomplishing it.

Whether there be many ulcers whose cure may not be undertaken with the greatest safety, and probability of success, I shall not dispute again in this place; and however numerous they may be, the known rules of art are sufficient for every thing

that seems to be expected from it. I may, however, venture to add, that perhaps nothing will contribute so much to the ease of the patient, as the bandage hereafter to be mentioned, drawn moderately tight. It is the confessedly curable ulcer then, that will be the chief subject of this tract, including, however, many of those found in that dubious state some practitioners have imagined.

To pursue this intention more perfectly, it will be necessary to take a comprehensive view of the usual modes of treatment recommended, together with the internal remedies on which surgeons have at different periods principally relied. And here a large field for disputation would open, if notice were taken of every thing that has been in vogue, or has had some warm advocates even from the press. But I shall only glance at such things as have not been generally adopted, and shall chiefly confine my observations to those in great credit amongst surgeons of reputation, who the author of this little essay wishes may peruse it with the same degree of candor, that he has meant to exercise of modesty and respect, in the liberty he has taken in differing from them in opinion. He cheerfully acknowledges the superior abilities of many of those who may be his readers, as well as their more extensive experience in the general practice of surgery—he thinks, however, he has some improvements to offer on the article of ulcers, though there are so many others, in which he should think it sufficiently honorable to say, *I præ, sequar, si non passibus æquis.*

It

It may be proper to begin with the internal remedies, as they will require but few observations, and will serve to unfold the nature of the plan proposed in the following pages. Amongst remedies of this class, the *CICUTA*, *SOLANUM*, and *NITRE* were once in great repute with some practitioners. Of the former, which has been tried in so many complaints, little more need be said in this day, than that it hath failed of that general success we were once made to expect, in any of those for which it was at first so highly recommended; though it is well known there are others, in which it frequently proves a most valuable remedy. In the hands of judicious physicians, and particularly those great ornaments to the profession, *Dr. Warren*, and the late *Dr. Fothergill*, many severe anomalous complaints have been immediately relieved by it, after having withstood every rational means that could be thought of *—The cicuta, however, is no specific for

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* Of this, the writer of these pages was, perhaps, one of the most fortunate instances, when under the care of *Dr. WARREN* for a most severe and painful affection of the face. The cicuta also proved equally successful in regard to *Mrs. Underwood*, when afflicted for a long time, with violent pain in the stomach, and for which *Dr. Warren* had previously directed cordials, bitters and opium, without any lasting advantage.—The author hopes he shall not offend that eminent practitioner, by taking this opportunity of publicly acknowledging, the very great obligations he has been long under to his friendship and services; and as, by no means, the least of them, that he has been, more than once, the kind instrument

fore legs, and though it may have its use as an anodyne, in a few cases hereafter to be mentioned, it will be sufficient to observe here, that it hath, perhaps, done less for these than for any ulcers, for which it has been at different times recommended.

The SOLANUM, I believe, has been long exploded, as a remedy not at all to be depended upon, and would not have been mentioned here, if great things had not once been said of it. It appears, however, to have had its use in some cases, which I was witness to many years ago, when house-surgeon to *St. George's* hospital, but it is certainly much too powerful and uncertain a remedy for general use, and no rule has been found whereby a judgment might be formed of the probability of its succeeding, unless it may be said in cases attended with great pain; and herein it is not only far less certain than opium, but much inferior to the cicuta. It may, however, be administered with safety for a few days, and will often produce a florid surface on an ill-conditioned sore.

NITRE was a few years ago recommended in the cure of ulcers;* and having been long regardful of

instrument of prolonging the valuable days of his nearest relative, and choicest comfort in life. The cicuta hath likewise been sometimes efficacious in diseases of the most dangerous nature, and even in that opprobrium to the healing art, the cancer, when seated in the *uterus*. Of this, the writer may give the public a fuller account in some future work, if the remedy should continue to be as successful as he has in several instances lately experienced it.

* Dr. ROWLEY, *On Ulcers of the Legs*.

every thing that promised relief in these complaints, I was readily disposed to attend to it. After a fair and repeated trial of it, I can venture to say only, that it is likely to be useful upon the lenient plan, as it certainly co-operates with the intention there pursued, of rest, evacuations, &c. by its known quality of lessening sensibility in the nerves of the stomach and the general system, and thus making the fluids circulate more slowly : but it has been observed,* that the cure of ulcers, when accomplished by such means, is seldom permanent. Besides, the possibility of such a medicine, in large doses long continued, producing some unpleasant effects in certain constitutions, may be considered as another objection to its general use. It is, indeed, a well known and powerful diuretic, but when taken in the large doses prescribed, its temporary good effects, I apprehend, are not so much to be attributed to this as to its sedative powers. In more moderate doses, however, it may be administered in those cases, wherein the above remedies are evidently called for, as will be noticed hereafter.

Before I proceed to inquire farther into the use of internal remedies, it may not be amiss to glance likewise at some external modes of treatment not generally adopted, which might not, indeed, be thought worth mentioning, but that I wish to notice every thing that has been reputedly successful.

One of these consists of frictions, and though it may be accounted in some degree empirical, probably

* Vide the Introduction.

some good may have been done by it. And it so far coincides with the present plan, as it proves a stimulus, supplying the defect arising from the languid circulation in the extremities. It will thereby liberate the parts, and open the fine vessels terminating on the skin;* but there is something so painful (as I am told) in the operation, and so inelegant and inartificial in the mode, that no surgeon will probably ever adopt it.

There are other empirics who effectually cure ulcers of the legs without confinement, or regulation of diet, some of them with, and others without the use of tight bandage; one of these makes free use of the mercur. corrosiv. rub. and as it appears, with very good success. But where no bandage has been applied, the ulcers are apt to break out again.

Another method among such practitioners, is that of bathing the limb in astringent liquors, or applying astringent lotions or dressings. And indeed such a practice in some cases, with certain limitations and additions, seems more intitled to attention, than many other external applications; though it is capable of doing great mischief in the hands of empirics. This method, however, as far as I have been able to trace it, does nothing without very tight bandage or rest.

Besides these methods, there are others which have been used in different parts of the kingdom, not

* Defricatio potest solvere, ligare, incarnare, minuere; dura ligare; mollis solvere: multa minuere: moderata crassescere.

HIPPOC. *Officin. Med.*

without

without some success; but so much pains has been taken to conceal them, that their good effects are necessarily very limited. Amongst these, the most remarkable that has come to my knowledge, is that long practised by a respectable gentleman not of the profession; who died soon after the former edition of this work appeared. He, indeed, ever kept his remedies as secret as possible; but, it is to be hoped, his successor in this branch of the healing art, may be prevailed upon to act with a liberality becoming the profession.

I proceed now to take notice of such internal remedies as have been in more general use, and are still in great reputation with the best practitioners in surgery.

The first I shall mention is MERCURY.—This may, indeed, be used with great advantage in many cases,* as a most powerful deobstruent and stimulant. But when exhibited freely, so as to raise a salivation,† the case is entirely changed; it may, indeed, from the vast discharge it occasions by the various secretions, in a few instances carry off something that has been injurious to the habit, and may especially keep it from the wound, and from counteracting the surgeon's designs; but it is very probable, it usually acts far more powerfully by reducing the vis vitæ for the present, and thereby coincides with the intentions of rest, diet, and purgatives, as will be farther shewn in the sequel of this work. And every candid practitioner will allow, that of all the cases of fore

* See FALCK on *Mercury*.

† See SHARP's *Surgery*.

legs that return so frequently to the hospitals, the greatest number is from those who were cured under a course of mercury; nor is it even probable, that strong and laborious men, whose sores have been healed by the means of so debilitating a plan, should continue long in a sound state, when they return to their usual diet and exercise.

CALOMEL taken inwardly, and in small doses as an alterative, though it less powerfully promotes the secretions, acts nevertheless upon the same plan, and being, indeed, usually joined with purgatives, cannot fail to effect just as much as other medicines of this class. It may have one advantage of them, however, by acting as a stimulus to the system, and in common with other mercurials is likely to be serviceable where the habit may be tainted with lues venerea.

PERUVIAN BARK is directed in the cure of ulcers of the legs, as it is also of many other sores, and is, doubtless, a very valuable drug. In the cases before us, and perhaps in all others, it acts as a tonic, and as such, often produces wonderful effects; neither physician nor surgeon would willingly practice without it: but in the present instance, it may be objected to, in many cases, as a medicine to be very long continued, at least, with the view in which it is sometimes prescribed. It is useful only where nature is languid, and her powers stand in need of assistance to bring an ulcer into a good state; it may then, in general, be soon discontinued, as should every other means used under the idea of expediting a cure. It may be doubted, indeed, if it ever acts as

an astringent in this way, but if it does, it will be often injurious, as will be farther explained in its place.

After what has been said, little need to be observed on the article of PURGING, unless it be to make an apology for so egregious a deviation from the general, and most antient practice;* and this I am ready to do both on the present, and every other occasion, when I shall be found differing from gentlemen who have made surgery their study and practice much longer, and to more advantage than I have pretended to.—But, *amicus Plato, amicus Socrates, sed magis amica veritas*.—To yield to any authority, would here be criminal. Facts must, and will stand.—I have seen the practice of the most eminent of the profession both here and in *Paris*, and have profited from it; but in this instance, at least, general prescription has failed, and every man knows how tedious is the cure, and how frequent the relapse of sore legs. Nature is compelled to dry up the surface of the ulcer, by the improper help of epulotics, rest, abstinence and physic, rather than encouraged to throw off by the sore, whatever is offensive, to fill up the surface with sound flesh, and gradually to abate the discharge, only in proportion as that surface diminishes.—This is the work of na-

* See HIPPOC. *Lib. de Humor*. TURNER, SHARP, and HEISTER on Ulcers of the Legs, the last of whom more particularly advises frequent purges to carry off the foul humours; forgetting that a continued recourse to them, will carry off the good as well as the bad.

ture.—'Νεωυ φύσις ἰατρος *—art should do no more than assist her endeavours, or remove the obstacles in her way.—But this is to anticipate the substance of the following sheets; suffice it to say here, that whatever virtue the exhibition of purges may be judged to have in healing of ulcers, the frequent use of them certainly does not dispose them to remain so; nay on the other hand, I venture to assert, that the long continued use of them is needless, and even prejudicial, in the cure itself, as is every other mean of lowering the strength, and for the present impairing the general health of the patient.

Another mean in great repute, both with former and modern practitioners, is the use of ALTERATIVE MEDICINES.—What virtue some drugs may possibly be possessed of, it may not seem very modest to dispute, but this I may venture to say, that some medicines have obtained very fine names, which it is well if they deserve. That there are such, as with very little or no sensible operation, may assist the vis medicatrix naturæ to make a salutary change in the system, will not be doubted by men of experience; though there are certainly very few medicines that act specifically on any disease, or induce any such change in the blood, as the term seems designed to imply. There are cases and constitutions, it is granted, that require medicines to assist the healing of wounds, but in specific contagions excepted, we have little reason to think, there are any deserving the

* HIPPOC. *Epidem. Lib. vi. § 5.*

name of alteratives, in such a sense, as to point them out as adapted to the ulcers now under consideration, or that do any thing more towards the cure of them, than of any other wound. It will be sufficient therefore, the general health be attended to, and such medicines occasionally directed, as are likely to promote it, (of which notice will presently be taken); if it be otherwise, I have been hitherto fortunate in not having found the necessity of them, and the patient seldom cares how few he is troubled with.

The reader's attention is drawn next to the DIET to which such patients ought to be confined; and here I must again express my dissent from the general opinion, which I would not do, without being thoroughly satisfied of the sufficiency of the grounds upon which I advance so very an uncommon one. But it is apprehended to be a matter of very considerable importance.—The diet ought not to be slender, unusually low, or limited, as is too frequently recommended,* but just that which the person ought to use in a good state of health; lower than too many like to indulge in, and rather better than some people allow themselves; paying due attention to custom and habit, which, it is well known, are to a proverb become a second nature. The safety and advantage of such a diet will be parti-

* *Modicus cibus et aqua omnibus ulceribus conducunt.* HIPPOCR. *De Ulceribus.* See also HEISTER, TURNER, and more modern writers on this subject.

cularized in another place, at present I shall confine myself to what is judged to be improper, and shall therefore briefly point out the disadvantages of an error in this respect. A low, and very limited diet, by its effects in weakening the constitution, together with rest and purging, tends to keep up that indisposition to heal, constantly observed in these sores; and thus conspires with the weaker circulation in the parts, to prevent the formation of good and laudable pus, so necessary to the cleansing and filling up of every old ulcer. Besides, cures effected under such a regimen are very unlikely to stand, and accordingly very rarely continue for any length of time. In many patients, and especially the heedless, and often abandoned amongst the poor, who soon return to their old and very different style of living, the yet tender cicatrice is unable to withstand this new impetus of the fluids, the consequence of which must be plain and obvious, without adverting to other considerations. Indeed, too applicable to this and other circumstances of discipline, in the management of sore legs, is that universal maxim, *omnis subita immutatio periculosa*; for indeed nature is abhorrent from it.*—In short, if the cure of very bad ulcers on the lower extremities is designed to be lasting, there must be a greater conformity in the non-naturals,

* Neque ex multa fame nimia satietas; neque ex nimia satietate fames idonea est.—Item, neque ex nimio labore subitum otium, neque ex nimio otio subitus labor, sine gravi noxa est.

CELSUS, *Lib. i. cap. 3.*

as they are called, both under, and after the cure, than seems to have been agreeable to the sentiment, or practice of the generality of surgeons in any age.

The supposed importance and necessity of Rest, and an horizontal position of the affected limb, has long been a *sine qua non* in the cure of large and old ulcers on the legs, both amongst the ancients and moderns,* and though it may seem bold, yet it is the leading design of this publication to attempt to set it aside, at least, to propose a method of cure without it, better, more rational, and lasting. And here it will, doubtless, be supposed, that every idea of necessity, or peculiar indication is excluded, such as fever, local inflammation, &c. which certainly demand a temporary confinement; and that the objection is limited to the simple idea of rest of the part, in order to facilitate, or perfect the cure. Whereas, the frequency, I had almost said constancy, with which large and old ulcers on the legs are found to

* Stare autem ulceri minime conducit, præsertim si quis in crure ulcus habeat; imo neque sedere, neque ambulare. Verum otium et quies maxime conferunt. HIPPOC. *De Ulceribus*.

See also *Traité des Tumeurs et des Ulceres*. Paris, 1759.

“ I injoin rest, with a due position of the limb, if not in bed or upon a couch, lying along at least upon some chair or stool, near a level with the trunk of the body.” TURNER.

“ Above all things rest, and an horizontal position; which last circumstance is of so great importance to the cure of ulcers on the legs, that unless the patient will conform to it strictly, the skill of the surgeon will often avail nothing.” SHARP'S Surgery. (*Introduction*) p. 38.

return, is greatly owing to their having been healed in an horizontal position of the limb.

HAVING now considered many, and perhaps the chief of the internal means in general use, together with the position of the affected part, and the diet of the patient, I shall proceed to make some observations on the ordinary topical applications, the more immediate province of surgery.

And the first thing that demands a particular notice, is the long continued use of *Fomentations* and *Poultices*, which, however they may invigorate and warm at the instant, tend greatly to relax the open mouths of the fine vessels, to destroy the tone of the muscular fibres, and induce a flabbiness of the skin over the whole limb;* thus laying an additional foundation for ulcers, healed in this way, to break out again. The use of them likewise generally obliges the patient not only to rest, but to keep in his bed,† that the limb may be preserved constantly warm; for where this is not attended to, little good can reasonably be expected, since a common poultice, soon becoming cold, is likely, in many cases, to produce more harm than advantage. What has been said, it should be observed, relates to their long continued use; an occasional recourse to them, especially in the commencement of the cure, and in some instances hereafter to be specified, may be sometimes, though not very frequently necessary.

* See BELL. *Part ii.* §. 2.

† *Id.*

Without examining particularly the great variety of *Dressings* that have been in common use, it will be sufficient in this place to say, that mere greasy applications without some warm and stimulating addition, however proper and useful in simple ulcers on other parts of the body, are liable to the same objections, and therefore not adapted to old sores on the legs. For though, like the former, they may sometimes, with the assistance of rest and epulotics, bring the skin over the surface, they are sure to leave the disease at the bottom.

AFTER having thus stated some principal objections against the ordinary practice, I am happy that experience warrants me in proposing a plan of cure more certain and agreeable, as well as more durable than any hitherto described. Indeed, the success has been abundantly greater than was at first expected, and its simplicity cannot fail of recommending it in preference to any other, if it were possessed of only equal advantages. But to save the trouble and pain of confinement and strict regimen, almost without the use of internal remedies, which in general are not very much relished by patients of any class, is surely an object highly worthy of attention; so that very little need be added, if the rationality and safety of the method can be made equally clear with its certainty and ease.

In the treatment of ulcers, two things are principally aimed at, by whatever means we may design their accomplishment; first, to bring the sore into a good condition with respect to its appearance,

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its discharge, and the sensations of the patient; and then secondly, to induce its surface to dry up, or form a cicatrice. In order to these, in the cure of every deep ulcer, it is necessary that its bottom should throw up healthy granulations, and come up near, or quite to the level of the surrounding skin, unless the ulcer has been attended with great loss of substance, or caries of the bone; but such incarnation is here included in the first idea, as it usually takes place at the time, or very soon after the sore puts on a healthy appearance. To these intentions a third may be added, which enters peculiarly into this plan, which is to heal them by such means as shall be most likely to prevent a return of the complaint.

An ulcer is here supposed to be unattended with much topical inflammation, or uncommon pain, and without any febrile diathesis in the habit. Here the principal intention is to procure, and keep up a copious discharge, without any apprehension, in general, about the time it may continue, or the effects it may produce; the former will not continue long after the ulcer is become clean, the latter, (it will be shewn) may be regarded as the very object in pursuit; at least, the same means that have produced and kept up a copious discharge, will cleanse the foul surface, liberate the vessels in the part, and occasion a good appearance of the sore, much sooner than any thing else, and can therefore produce no manner of bad consequence.*

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* “ I should be unjust if I did not remark, that when these terrible scorbutic ulcers are cured by this method (a suppurative poul-
rice)

The means of accomplishing these intentions may be ranked under four general heads, External Applications, Bandage, Exercise, Diet and Medicines. Of the first it would be difficult to make any exact, or regular arrangement ; but it may be said in general, that they consist of digestives, deterfives, escharotics, and a certain kind of astringents.

In order to state the advantages which it has been said may be expected from this plan, it will be necessary to examine the several articles just now enumerated, and to obviate the objections that may arise in the minds even of eminent practitioners, against so free a use of the remedies proposed ; especially as so much is expected from them, as to occasion the discarding so many other means which custom has stamped with an almost sacred authority.

The Digestive in most cases cannot be too strong, if not productive of that kind of irritation, which may provoke inflammation in the neighbouring parts ; nor is that much to be apprehended, for it is remark-

tice) you may perceive during the cure, the patients countenances, which were generally of a squallid hue before, to be clearing up daily by the discharge from the sore, till they come to a perfectly healthy appearance. And this being done without any internal medicines, I lay it down for a maxim in all cases, that it is better for the patient to discharge any peccant matter externally from the part, which nature laid it on, than to retract it into the blood, by bleeding, purges, or other evacuations ; for by this means, the matter is often translated to the lungs, or other noble part : for it is a well known maxim, that *ab extra intus redire, malum est.*"
FREKE'S *Art of Healing*.

able, that very irritating applications to these ulcers scarce ever induce it, especially, (however incredible it may appear) where exercise is freely allowed; which by its tendency to promote the discharge, so far counteracts inflammation.

The precise form of such digestives, it would be thought trifling to insist upon, as the Pharmacopœiæ of *London* and *Edinburgh* for the most part contain them, or such as are very similar to them; * though both pharmacopœiæ are deficient in regard to a suitable digestive for tendinous parts. In other respects, however, some one of the more active among these prescribed formulæ, will in a very few days produce a fine surface on an old, and very painful sore, and with the assistance of exercise, a good diet, and proper roller, will in a variety of cases, and without any other means, effect a speedy and lasting cure; though the patient should have been subject to sore legs for a number of years, and never easy a month together, after having been repeatedly healed in the ordinary way.

* It may be useful, however, just to say, that the Unguent. Basil. nigr. of the *London* Pharmacop. as a digestive for ulcers on the legs, is as much preferable to the Basil. flav. as that would be to the Ung. album. And I mention this, and have also, in the present edition, taken notice of other applications I have found useful, in consequence of being informed, that gentlemen who have adopted the plan, and with very good success, have been at great pains in making experiments in regard to topicals, before they could be satisfied what might best correspond with the hints I had formerly given.

I can foresee no formal objection to be made against any of these digestive, or deterfive ointments. Such made of the warmer gums, balsams and oils, have always been in use among surgeons; and if I have intimated, as I mean to do, that they cannot be too powerful (if calculated to promote digestion, and induce firm and florid granulations), and that they ought to be longer continued than is commonly done, it is on account of the more inert state, and weaker circulation observed in these parts, and their disposition to break out again into a sore, if precipitately healed. It is to prevent this, that the discharge is directed to be kept up as long as nature shall be disposed to it, instead of having early recourse to drying, or healing applications, as they are called, in order to hasten the cure; and for which, in the greatest number of cases, there will be found little occasion on this plan.

But to pass on to things more liable to objection, such as very stimulating, and corrosive applications. Here, I wish first of all to obviate in part the force of a principal objection, that they occasion pain, (which, however, they often remove,)* by observing, that such applications are to be used only now and then; and I can assert, that although they are to be applied in considerable quantity, they will not excite half so much pain as might be apprehended; as

* See WISEMAN, *On Ulcers with Pain. Chap. iv. Observ. 2. Book. ii.*

they are used chiefly to sores in a certain state, which will very well endure them, and are rendered very tolerable at the worst, by means of that exercise so continually inculcated. For I am constantly told by patients to whom they have been the most freely used, that walking always mitigates the pain, which accordingly is severest in bed, at whatever time of the day they have been applied. Nor ought I to omit asserting, that filling a sore with mercur. corros. ruber, affords very little more pain, than moderately sprinkling it on the part; besides which, we are to consider that one dressing in this manner frequently supersedes the necessity of many repetitions of it, in a more moderate way.

Another objection may arise from the stimulus, such applications will occasion, endangering inflammation, and rendering an ill-conditioned sore still more obstinate, by producing a sharp and ichorous discharge more abundantly corrosive. This is certainly true in a few cases, of which I shall speak in their proper place, but in a general way, facts prove directly the contrary; sores on the legs require a stimulus,* and it has been said, are not easily provoked to inflammation. I have applied the red precipitate to sores exquisitely tender and painful, discharging nothing but a thin ichor, which has covered the surrounding skin with heated pimples, and

* WISEMAN observes, that "applications to these ulcers ought to have a temperate heat; and whatever objections" (says he) "may be made against even caustic applications, where milder ones take no place, we proceed to the stronger."

small ulcers, and that after trying lenient applications to no purpose; the precipitate has immediately changed the appearance and discharge of the sores, the surrounding skin has lost its unpleasant aspect, the pain has been removed, and the ulcer, when small, been nearly filled up in a few days.

Besides objections taken from the pain, and other effects of such evident stimuli, it may be farther remarked against the quantity and manner, in which such applications are used, as well as the intention itself, that large surfaces, being thus repeatedly and rudely destroyed, and even deep sloughs produced in some of them, is a very inelegant mode of dressing an ulcer, and has more appearance of the farrier, than the surgeon. I shall not on this occasion stay to compare it with the actual cautery, very frequently in the hands of the former, and not altogether laid aside by the latter, but resting satisfied with the evident advantages arising from the means recommended, must urge the necessity of maintaining, in many cases, a new surface; without which, though the ulcer may sometimes heal up, under strict regimen and rest, it will most probably break out again when the patient returns to his usual diet and exercise.

Beside the arguments that have been offered in defence of such applications as create a more than ordinary irritation, or seem disposed to increase pain in the ulcer, there are not wanting obvious facts to support them; it being universally acknowledged there are many cases, even where a kind of spurious in-

inflammation* attends, in which they prove more speedily useful than any other applications. I might particularly instance the small ulcers on the gums, and inside of the lips, said to arise from an affection of the stomach, which are generally cured in a few days, by a little burnt allum, a slight touch with the lunar caustic, or a drop of spirit of sea-salt. Whereas, holding warm milk, or any other lenitive, for a much longer time in the mouth, and frequently repeated, though soft and pleasant to their tender surface, offended even with the stroke of the tongue, would have little or no tendency to heal them. So also the true scurvy on these parts, will bear, by degrees, the undiluted spirit of salt,† and is cured by it, when bland applications would increase the complaint. It is also well known, that some small ulcers upon other parts of the body, (and even affections of the eye-lids) which are apt to furnish

* I have made use of this term from a conviction, that there are frequent appearances of inflammation, as to colour and heat, where the action of the parts affected is very dissimilar to that always met with in true inflammation. Of this spurious kind may be ranked Erysipelas, the treatment of which, it is well known, ought to be materially different from that of the true phlegmon—But the subject is not proper for farther discussion in this place, and would lead me too far; though it may be necessary the reader should keep the distinction in view, in regard to various passages, as well as the practice frequently inculcated, in the following pages.

† See VAN SWIETEN'S *Comment. on BOERHAAVE, and LIND.*
On the Scurvy.

an almost caustic discharge, and are therefore intolerably painful, and difficult of cure under lenient applications, are frequently dried up in a very short time, by a few slight touches of the lunar caustic; which by destroying some little inflamed gland, removes the source of the evil at once.

IN regard to the bracing, or astringent applications I have mentioned, the propriety of them will appear best in their proper place. It will only be necessary at present to remark, that these astringents are different from those in common use, both because they do not leave a dryness on the skin, and because they are of a very deterfive nature; neither are they made of such a strength as to suppress the discharge, but rather to brace the surface of some particular ulcers: besides, the use of them is not constant, and is seldom long continued.

I COME next to the subject of BANDAGE.—It may be an empirical, but is no bad argument, when the integrity and common sense of the speaker are not suspected, to say, that facts are stronger than reasoning; they are stubborn things even to a proverb, and they speak in favour of very tight bandage. I have applied it to the corpulent, heavy and inactive, to the young of an inflammatory habit, to the aged, to the pale and leucophlegmatic, nor have ever repented the use of it when accompanied with exercise; which every one will see, has some tendency to counteract the possible ill effects of such applications to the extremities. It is true, we have known tight rolling and the laced-stocking prove hurtful to some people,

people, when applied to large, hard swellings of the leg with varicose veins, and have been repeatedly followed by such complaints of the stomach, as have made it necessary to lay them aside, though the limb has been greatly benefited by their use. But this disadvantage does not always take place even in these cases, and the objection is greatly, if not totally removed, as I have had the clearest proofs, when there is a sore on the leg; the discharge from which, cannot but tend to obviate all the apprehended ill-consequences :* and whilst that is, on this plan, encouraged

* See WISEMAN'S Surgery, *Book ii. Chap. 4. Observ. 1.*

Although for very obvious reasons, † I have been unwilling to adduce any cases of my own, in support of my opinion, yet I am inclined to think the following is so fully in point, in regard to the difference made by the presence of a sore, where tight bandage is used in diseased and disordered limbs, as well as respecting the safety of healing up some ulcers in very suspicious habits of body, that I have been prevailed upon, in this instance, to wave my prejudices against introducing cases on disputable points. To avoid breaking in upon the subject, however, I have thrown it into a note, that the reader may pass it over if he pleases.—A young woman, whose mother had been afflicted with a painful tumor and hardness of the leg, a scirrhus in the breast, and afterwards died of a cancer in her mouth; had herself a similar complaint of the leg from the age of eight years. On the first appearance of the menses, this became more painful and enlarged, and soon after, confined her for some time to her bed; it was then fomented and poulticed, and she was let blood and purged, which took off the inflammation, but the hardness

† Aut famam sequere, aut sibi convenientia fingi,
Scriptor—

HORACE, *de Arte Poetica*,

raged by digestives and exercise, it will abate only in proportion as the ulcer diminishes in size; which, as will be shewn presently, is permitted, rather than compelled to dry up.

Besides

hardness and tumour remained as before. A linen roller, and afterwards a laced-socking were applied, which kept it easy for three or four weeks, but her stomach being affected, she was obliged to lay them aside. In a short time, the leg became painful again, but did not inflame for some years; when she was again confined, and treated as before, but never got rid of the hardness and swelling, nor was ever long together perfectly free from the pain.—She was always easier after the flow of the menses, and in most pain about the return of that period.

At the age of two and twenty she married, and soon becoming pregnant, her stomach was much indisposed, and she suffered in that way for several weeks. During this time, her leg became abundantly better, the hardness and tumor abated, and she could bear to press, and beat it with her hand, in a way she had never before dared to attempt. About the end of the fourth month of gestation, her stomach complaints considerably abated, and her leg became instantly painful; and in two days was very hard and enlarged, was considerably inflamed, and had a little oozing from under the skin. At this time I was consulted, and was informed that her situation in life would not allow her to rest, or keep the leg long together in a horizontal position.

Upon considering the whole of her case, it appeared very prudent to prevent complete ulceration, but (as she could not keep the part supported) I was fearful I could not prevent it; though had her habit of body been different, I should have had no fears about treating the sore like other inflamed ulcers on the leg, whenever the skin should compleatly give way. I therefore did what I could to prevent the farther cracking of the skin; but without absolute rest, this was scarcely to be expected, nor is it certain,
even

Besides these things, the kind of roller is to be considered, which ought to be made of the thinnest *Welch* flannel, not thicker than coarse linen, with advantages no linen can have; it not only being softer, fitting easier,

even that could have prevented it. It accordingly gradually became sore, and was painful to the highest degree, so that she often sat screaming out aloud for hours together, unable to put her foot to the ground, though the foot was dressed only with ceratum alb. or a saturnine cerate, and sometimes with different kinds of poultices: and she kept the limb as quiet as her situation would allow of.

Not knowing what to do better, I determined to try my own method, being satisfied that tumid legs will often bear rolling when affected with ulcers, though they would never endure it before. I dressed it with a powerful digestive, and rolled it up moderately tight, though it was swelled to a greater size than any leg I ever saw; notwithstanding it had, for some time, been rested great part of the day on a chair. It had broken into a small, foul sore, of an irregular shape, without the least appearance of red flesh, and the skin was discoloured half round the leg, which was exceedingly varicose; it discharged a scalding ichor, that destroyed the skin wherever it ran, increasing the size of the sore, and was getting daily more painful.

Having dressed it as above-mentioned, she was now permitted and encouraged to walk, and became easier from the hour the roller was applied, which continued to agree perfectly well. The leg remained pretty easy throughout the cure, except for some time after it was dressed, when sharper applications had been used, but continued to spread till the ulcer became clean, and a copious discharge was produced; which did not exceed seven or eight days at the most. After this, it was no longer painful, discharged laudable pus, and in about a fortnight's time, began to heal very kindly, and continued to do so till it was perfectly well.

Like

easier, and making no plaits on the skin, but is elastic to a very considerable degree. This is greatly increased by its being torn across, and sewed together selvage-wise, (the hard selvage-thread being first cut off) whereby

Like many other ulcers, when the patient is permitted to walk, it was always most painful in the night, for which reason, she was obliged to take occasionally half a grain, or a grain of extractum thebaicum at going to rest; which was sufficient to quiet the pain, and seemed to produce a very good effect on the sore. At the time this was the most painful, she was not only permitted, but compelled to walk out, and always came home easier, though she often walked farther than she had been able to do at a time for a number of years; yet the leg never swelled, but evidently grew softer by the exercise. In this case, as well as in a variety of others I may afterwards specify, the application of precipitate, though it sometimes gave great pain for an hour or two, proved an occasion of speedier ease on the whole, as it destroyed the foul surface, produced a laudable discharge, and brought the sore into a desirable state much sooner than it could otherwise have been. When this application was made use of, the ulcer discharged a caustic sanies, that corroded wherever it ran, and the surface was so sensible, that the patient could not endure the slightest touch of an armed probe, to wipe off the matter. It was only a few weeks in getting well, the hardness and tumor of the limb subsiding as soon as a copious suppuration took place; and before the ulcer was healed, the leg was, I believe, quite as small as the other, and has continued so ever since, though there was no remarkable return of the sickness, and she has now lain-in above a twelve-month. Neither did gestation afford any impediment to the cure, nor have I in all the cases I have met with, ever taken notice of such an effect, though some gentlemen of character have,

and

whereby the roller is made to yield to every motion, and varying shape of the limb, and admits of, and assists the patient so much in walking, that I have known persons with such painful sores as prevented their standing upright, find immediate relief in this respect, and be able to walk with comfort, from the first hour they were put on. To this fact numbers can testify, and it is from experience I can say, it will be found on small improvement in rollers for the legs, that flannel is substituted for linen, and that they are made up in the manner here recommended. I should neither speak with such confidence, nor enlarge as I have done about trifles, having seen enough to prevent my depending on a few fortunate cases, or venturing to publish my thoughts to the world, as containing any improvement, if not sufficiently supported by facts, or if there were any room left to doubt, upon what such favourable events had turned—Perhaps these, and other advantages † of this bandage, may be explained on the following principles.

I. The moving soft parts are not only kept warm, but receive a considerable and constant support, and

and much has been observed by authors on this head.—“*Impregnantibus ulcerum curatio difficilis, propter retentionem superfluitatum earum, propterea quod ipsarum menstrua retinentur.*”

AVICENNA, *de Ulceribus, Lib. iv.*

This person has since the former edition of this tract lain in a second time, and has enjoyed good health, the leg also continuing perfectly well.

† See page 77. *Note.*

their

their action is rendered more general and regular : we may even suppose that some part of the effects of action, is transferred upon the bandage, or its operation so modulated, that it is not wholly exerted on the skin.

II. The blood and lymph are determined to a more equable circulation.

III. The growth of fungus is considerably restrained, and callous edges are prevented, or removed.

IV. The surrounding skin is brought forward on the fore, and the several parts are brought into contact ; and consequently, a lodgment of matter is less likely to take place.

V. Compression warms, sustains, strengthens ; and by repelling from the adjacent tumid parts, derives from the system greater powers of healing, to the seat of the ulcer.

VI. The compression disposes the sore to heal more smoothly ; and these advantages which are very considerable, are increased, as hinted before, by the free use of the limb.

I have said so much on this head, because this, as a general practice, is so much out of fashion, though once in great esteem with eminent surgeons, and particularly *Wiseman*, whose contrivance the laced-socking seems to have been. The ancients, indeed, made use of rollers much oftener than we do, and apparently to considerable advantage, but they speak of them only as retentive bandages, or for bringing divided parts into contact, and to assist
the

the more speedy closing up of deep ulcers after a proper digestion; or at the most, as expulsive, to prevent fluxion to a part; but their bandages were but ill-calculated to answer the end, and were never applied so tight as *Wiseman* recommended, nor with particular reference to the legs. *Wiseman* himself, however, does not appear to have understood all the advantages he received from the use of his laced-stocking, as he seems apprehensive that the cure of ulcers on the legs obtained by this means, were less likely to stand, than those effected without it. He appears, therefore, frequently to have recommended the stocking and rollers on the same principle with rest, and an horizontal position of the limb, to prevent what is termed a descent of humours to the fore, and the œdematous swelling that often accompanies these ulcers. But his reasoning was certainly not so good as his practice, and had his bandage effected nothing beyond his intentions, his success had been much less than it was. The roller has many other uses besides counteracting the disposition to œdema, (to which the lower extremities are peculiarly liable), and one that I must beg leave to notice in this place, arising from the manner in which the filling up of every deep ulcer is effected. To this end, there is not only a trifling elongation of the capillary vessels in the wound, but the parts contiguous to the ulcer are found to waste, or diminish considerably; insomuch that *Messrs. Fabre* and *Louis*,* eminent

* *Memoires de l'Académie de Chirurgie, Vol. iv.*

surgeons in *Paris*, attribute the whole of this process to what they call *un affaïsement*, or a waiting away of the extremities of these capillary vessels. This, indeed, is by no means the whole of the case,* though it is principally hereby, that the cicatrice in deep ulcers approaches the level of the surrounding parts, when such wounds are perfectly healed; and this, (as hath been mentioned already) ought to be the case in newly healed ulcers; and when it is not, the cure in general is not very likely to stand.

As this is a circumstance evident to every attentive practitioner, I cannot help observing, it is matter of some surprize, that rollers are not more frequently used than they are, and a greater compression made by them, not only for sores on the leg, but also on many other parts of the body; as it is probable they would not a little contribute to their cure.

There is only one instance, however, that I know of (common incised wounds excepted) in which this practice has been much attended to, which is that of the venereal buboe; though even in this, the practice has not been general. But Mr. *Bromfeild*, I know, has constantly had recourse to it for that ill-conditioned sore, which it is well known is frequently very troublesome to heal, after the venereal virus has been destroyed. Such, however, after resisting a variety of

* That there is a power of extension or developement in the vessels of a wounded part, is evident from the vast fungus that will shoot up in some ill-conditioned sores, and in various excrescences, which are furnished both with blood-vessels and nerves.

dressings and alterative medicines, have been presently healed upon the application of a very tight bandage; for which information, when I first began business, as well as many acts of kindness, I am indebted to that gentleman, to whom the public well knows its obligations in matters of greater importance.

Upon this head, I am much indebted to the ingenious author of a *Treatise upon Ulcers* before-mentioned, * whose reasoning long ago perfectly satisfied me, as to the safety and advantages of tight bandage, and determined me boldly to push the experiment, till I should find reason to change my opinion; which this publication is proof enough I have not done. But the laced-socking so much recommended by *Wiseman*, falls far short of this double intention, and is every way inferior to the flannel roller, which lies much smoother, tighter, and makes a much more even, pleasant, and steady compression, than can be made by any other contrivance. † By this means, as
it

* BELL, *Part ii.* § 2. See also CLARE, *On Abscesses*.

† WISEMAN, indeed, almost every where prefers the laced-socking to the roller, giving for a reason that the roller makes a less uniform pressure, and even bruises the parts: but however this may be with a linen bandage, no laced-socking can be so smooth, firm, or so pleasant as a flannel roller. The great advantages of which are now so evident to me, that however necessary surgeons may think rest to be in some very bad cases, however attached to particular diet or dressings, or prejudiced against any part of this work; I would, entirely upon principle, importune them to add
to

it has been said, the growing flesh in a healing wound, is easily kept within bounds, and that troublesome luxuriance is prevented, of which a more moderate degree is always required ; and for the want of which, it will be shewn, sores on the lower extremities do not heal so readily as on most other parts of the body.

As so much is expected from rolling, it will readily be presumed, some care is required in doing it, and, indeed, the application of bandage is no contemptible branch of the profession ; for though I do not mean to hint, that so much judgment or memory is requisite for rolling up a leg, as in the application of bandage to many other parts, yet great attention is necessary. The roller must make a due pressure on every part, or some sinus may unexpectedly be formed ; but of this there is not the least danger, if it be applied with care, and the proper directions observed, though it be drawn ever so tight ; neither will it leave so much rising on the skin as a linen one, which also will give considerable pain if the patient be permitted to walk. The warmth likewise which the flannel communicates to the limb, especially in

to all these, the constant use of a flannel roller, and can assure them of far greater success than they have ever had, in every ulcer of the lower extremities. Its advantages, however, are not confined to such cases, for I may venture to assert from farther experience of its utility, that a flannel roller is greatly preferable to a linen one, in almost every case where a roller is had recourse to, and particularly after amputations ; especially in the improved method, as Mr. *Allan*son's may now justly be styled.

cold weather, has long appeared to me a matter of very considerable advantage.*

The manner of applying it, it has been said, requires nothing but care. Every one knows that tight bandage should begin at some distance below, and be carried some way above the parts it is chiefly designed to compress; otherwise, the matter attempting to issue from the ulcer, being confined by the tight pressure upon it, will force a passage wherever it finds a less resistance, and thus convert a simple ulcer into a fistulous sore.

But for ulcers on the legs, especially where exercise is allowed, this rule should be considerably extended, and the bandage (which ought to be about four inches wide) should begin as far below, and be carried as much above the affected part as the limb will allow of. To this end, it should commence at the extremity of the foot, where it should be drawn very tight, (the end of the roller first crossing the instep) and after being brought two or three times over the ankle, should ascend spirally (the edge of one turn of the roller being not more than about an inch from another) till it rises to the calf of the leg. Here the stricture ought to be less, to permit a free action of the muscles, and the turns therefore be somewhat more distant; in which manner it must be continued up to the knee: above this part it would be improper to carry it, though recommended by con-

* See BELL, *On Ulcers. Part ii. §. 2.*

siderable authority, * and that for most obvious reasons, where exercise is both permitted and enjoined.

I have been thus particular on this head, from the great consequence I know it to be of, and hope it will not on this account be imagined that I affect any particular art in the performance. Every surgeon well knows of how much consequence it is, that rollers be properly adapted to the end for which they are designed, and how much trouble may arise from great compression being made above or below the precise part, for which such compression was employed: all such are capable of doing it well, if they will do it with care, which is the thing I mean to inculcate; as otherwise, the patient whose leg is rolled tight, will suffer great pain, and the surgeon be long disappointed in the cure. However trifling these directions may appear, experience will prove them to be otherwise—A very moderate share of knowledge of the first principles of science, were sufficient to guard me from insisting on trifles; upon which the art of healing will never depend. But as there are many young men always in *London*, who come professedly to learn, and some of them with very little previous education in surgery, for such at least, more particular directions may not be wholly unnecessary.

WITH regard to EXERCISE, it may possibly be said, that this in a great variety of cases, (even without the presence of fever, or topical inflammation)

* *Medical Observ. and Inq. Vol. iv.*

cannot fail to produce, or increase pain, especially where stimulating applications are used. And that in all cases, (though no pain or inflammation should follow) it must have a natural tendency to retard the cure, if not entirely to hinder it, both by disturbing the tender granulations as they rise on the sore, and preventing that process of nature by which they dry on the surface, and produce a cicatrice.

Of this some notice has been taken already, as far as pain is concerned, and it has been said, that exercise frequently removes it. In other respects, though such reasoning may be very just, as it regards many wounds on other parts of the body, it has not a like application to old sores on the legs; where a more than ordinary stimulus is required. The latter are never so expeditiously cured, as those on superior parts, in whatever way they are treated; but I am satisfied from a variety of facts, will in many instances heal sooner with exercise than without it. It is acknowledged, that after the operation for the hare-lip, and every other similar case, where parts are to be united by the first intention, they must not only be brought into contact, but be kept so for some time, in as quiet a state as is possible, or they will seldom unite firmly. But how very different these cases are, it can be scarcely necessary to point out, and I have mentioned them only for the better clearing our way to the precise point on which the argument turns. For though the lips of such wounds will not grow together, whilst they are kept constantly in motion, yet both lips will be covered with skin in a very
few

few days, and in this sense, a healing of the wound is produced; and it must be very great motion indeed to prevent it. Now this is the kind of healing in question relative to ulcers on the legs, and if motion of the part affected is capable of preventing it, (where a proper bandage is constantly worn) * it must either be such, and to a degree that would prevent, not the union, but the healing of the raw edges of the lip I have mentioned; and surely no common action of the lips will do this. Or secondly, it must be effected from the exercise so greatly increasing the discharge, as to prevent that disposition to dry up,

* It may not be useless in this place, to make a few general observations on muscular action, with a view to point out the source of some of those particular advantages of tight bandage before noticed,† where exercise is used. In muscular action, there is always an accurtation of the moving fibre, and a general enlargement of the muscle. This increase of bulk is not equal, but is greater about the belly, than at the extremities of the muscle.—Disease in a part may render this action liable to great irregularities—Fascia, and annular ligaments, &c. prevent unequal contraction, and its manifest inconveniencies.—It is true, we don't find the muscles acting in such a way, as to press from within outwards, to a degree capable of forcing up the skin very considerably; but they can, nevertheless, pull upwards and downwards, with sufficient force to derange a healing wound.—Now bandage effectually prevents irregular action, and will keep the skin from moving considerably when the muscles act, as well as diminish the swell of those that lie immediately under it.—These are precisely the points aimed at; and that bandage will answer these intentions, is very evident, both from reason and experience.

† See pages 62, 63.

which ought to take place in the extreme vessels of the fore, whereby it has been said, the cicatrice is formed. And if the quantity of discharge be the objection, in regard to ulcers on the legs, it proves all I contend for ; it is desirable if it be good, and the want of it is, during the greatest part of the cure, the grand obstacle in our way to the healing of the fore. * For those on the leg, and especially the most painful ones, either discharge very little, or abound only in a thin and excoriating ichor. Nor can either of them be changed for the better, but by such means as shall restore the due tone of the vessels of the part, so as to condense the loose, or unfold the callous texture of the surface, and thereby open a way for the secretion of laudable pus, frequently the best dressing that can be applied to a fore.

Now, exercise contributes to this, inasmuch as it tends to promote a free and bold circulation of the blood, to open the small vessels, and restore a free passage in the system of lymphatics, whereby it increases the strength and vigor of the limb. On this account, the discharge can never do harm, nor the exercise that promotes it keep the fore improperly open ; for if the habit in general have nothing particularly amiss in it, and the circumstances of the part be such as have been described, the discharge will gradually abate as the ulcer diminishes, and its sur-

* L'ulcere sec, qui ne suppure pas, ne peut pas se deterger, or tout ulcere qui ne deterge pas, ne peut pas se guérir.

Traité des tumeurs et des Ulceres. Paris.

face will always dry up in a reasonable time. Such exercise of the part is not, indeed, necessary to the healing of sores on the upper extremities; but the difference in the lower ones, and particularly the inferior parts of them, is greater than has been generally imagined, or has, at least, had any influence upon practice. Nature, therefore, ever attentive to the good of the whole, and provident for every defect, has wisely supplied the natural deficiency arising from their distance from the heart, in the best way it was possible; besides, therefore, that share of labor they have in common with other parts, it has not only imposed upon these (as was hinted before) the weight of the whole body, but has destined them to be the instruments of this conveyance from one place to another.

But on this something has already been said, and I may have still farther occasion to insist as I go on; suffice it to hint here, how greatly prejudicial it must be to general health for any person, accustomed to labor and exercise, to be confined for a length of time in an inactive state, and the greatest part of it, in an almost horizontal position.—Can it then be necessary in the cure of ulcers on the legs, to deprive the part affected of those very advantages which nature designed for its preservation in vigor? * Has it the most

* *Ufus corroborat, otium autem colliquet. Hippoc. Med. Officin.*

This observation is universally allowed, and is remarkably evident

most remote tendency to perfect the cure; I mean, to make such a cure as shall stand?—If not, certainly our art is materially defective, or we are faulty in the use of it; for is not a perfect cure much more likely to be effected, under such exercise of the limb as shall afford the natural stimulus, if the certain evils attendant upon that exercise can be obviated?

It is granted, however, that exercise may in the case of some large sores, to a certain degree, retard the healing of ulcerated legs, for the same reason that very great motion might be hurtful to sores on other parts. But instead of being otherwise injurious (by occasioning fluxion of noxious humours, and I know not what other evils said to be peculiar to the lower extremities), it is really useful in every other respect if a proper bandage be applied, and is therefore advantageous upon the whole for every ulcer on the legs, as I hope hath been tolerably proved; and particularly, as it hath a direct tendency to prevent the sore breaking out again.*

Many

dent in the vast influence that great exercise of the extremities is observed to have in watermen and porters; the former of whom have usually large strong arms, and slender legs; and the latter thick muscular legs, almost without exception, if they are in health.

* How far the continuance of a roller, which I understand a very respectable hospital surgeon advises to his patients, may prevent a return of the complaint, I have no right to attempt to decide,

Many, however, would be the disadvantages of motion in ulcers of the legs, if they were covered only with a common poultice, or left merely to the dressings that are usually applied to them; but upon the plan here recommended, they are constantly supported by a firm, soft, and yet elastic bandage or roller, which in very many cases, as infallibly counteracts every possible inconvenience arising from motion, as the motion itself, thus supported, has a manifest advantage. And though some objections in turn might, with equal propriety, be made against the remedy itself, or the constant application of so tight a compression as has been recommended, yet all such objections, it has been remarked, are greatly obviated by the use of exercise.*—I am aware, that

cide, since I have never enjoined rest, in any instance, since I knew how to effect the cure without it; though, indeed, an hospital is not the properest place to determine the point, as the patients are often never heard of after their discharge: we know, however, how very common it is, for large, or old ulcers, healed by means of rest of the part, to break into much worse sores than before they were first healed.

* A free use of the limb has been so generally exploded amongst regular practitioners, that it has been more necessary to insist thus largely upon it; and this appears, not only from its general disuse, but also from suspicions arising in the minds of sensible writers,† after men of such experience and reputation as Mr. *Else* seem to have approved of it. ‡

† BELL, *On Ulcers*.—The following specimen will shew how strict an adherence to rest, authors have required, “ Il faut faire tenir

‡ *Medical Observ. and Inquiries, Vol. iv.*

that such argument appears to manifest disadvantage, and may be thought to be little more than a *circulus in circulo*; however, it is consonant to various maxims that were never disputed: for instance, as a very nourishing diet would prove hurtful, where proportionable exercise were neglected, and vice versâ, hard labor without adequate nourishment, but taken together, contribute to the health of the subject; so clearly has experience proved to me, the salutary effects of tight bandage and exercise united, in regard to the ulcers in question.

Notwithstanding what has been here and elsewhere advanced on this subject, I have been somewhat surprised, since the first appearance of this tract, to find that so attentive and judicious a practitioner as *Mr. Bell*, should in the last edition of this treatise upon ulcers, so strongly inculcate the necessity both of lenient applications and rest, in the cure of ulcers on the lower extremities; without offering one argument in support of the latter, or attempting an answer to those I had advanced. Having barely mentioned my opinions, he observes, (p. 203) that he has tried every method that has been published to the world, and has succeeded in all of them, but that he finds no cures so easily or speedily obtained, nor any

tenir la partie malade dans le plus grand repos; le moindre mouvement est capable d'y faire des teraillemens, qui augmentent la douleur et la suppuration, détruisent les chairs tendres qui renaissent, et brisent les premiers linéamens de la cicatrice." *Traité des Tumeurs et des Ulcères.*

that

that prove so *permanent*, as those effected by mild dressings and rest. Now, such sentiments, especially the latter, appear to me very extraordinary indeed; but being only assertions, I may, with the strictest regard to truth, venture in return to assert, that besides all that has been adduced as evidence, in a way of reason and argument, my own experience, and that of numbers of others, in hundreds of instances, *runs directly the contrary way*. And I venture farther to suggest, that if *Mr. Bell* will be at the pains of dressing his patients with his own hands, will roll up the legs constantly himself, and by the due use of active applications will procure a sound surface to ulcers, he will meet with many that will be healed sooner, numbers more certainly, and *all more permanently*, than by mild dressings and absolute rest. But if surgeons will make use only or chiefly of bland applications, which it is granted may sometimes more speedily induce *new* granulations, as *Mr. Bell* has asserted, but will never induce *sound* ones in distempered parts, or on a foul surface, they must expect such a cicatrice, however induced, in a short time to give way. And I may just observe in this place, that I do not wonder *Mr. Bell* so strongly insists upon the necessity of inserting an issue previous to the cure of every ulcer of long standing,* though he considers them merely as local affections.—As issues are not likely however to do any harm, and are sometimes useful, it were needless to urge many arguments

* Page 230.

against so general a sentiment; nevertheless, issues being always troublesome, and to many people very disagreeable, it is but justice to say, I rarely propose them, and have not, in any view, experienced the bad consequences of the neglect.

THE DIET recommended in this method, may be as exceptionable to some people as any thing that has been advanced; but such are desired ever to keep in view the whole of the plan, one part agreeing with, and assisting the other, and all of them conspiring to the grand end in view, which is to heal sore legs in such a way as shall tend to perfect a cure. And, indeed, were it not for the depending situation of these sores, surgeons would scarcely have thought of the propriety of a sparing, or low diet,* for so many months together, in the cure of them; nor yet of that frequent recourse to purging, without which the healing up of old, or large ulcers is never attempted. For these sores, it has been said, are not usually attended with inflammation, and where they are, it is seldom difficult to be removed. Indeed ulcers of this class, are more generally to be met with, in weak, relaxed constitutions, than amongst strong plethoric subjects of an inflammatory habit, and are in such circumstances more difficult to be cured.

But when a way is discovered to prevent the ill-effects of exercise, and the descent of humors, as it is

* See BELL, *Part ii.* § 2. where the ingenious author declares himself of this opinion.

called, there can be no objection, (an evident state of general, or local inflammation excepted), to any diet that would be found proper for such people at another time; and which most are sure to indulge themselves in, as soon as the surgeon has taken his leave.

The above ill-effects, it has been already observed, are obviated by a proper bandage, and I hope it has been made appear,* that the seat of this ulcer being on a depending part, is not the chief hindrance to a cure, but its being an extreme part of the body, in which the circulation is less vigorous, and the vires medicatrices naturæ, for these reasons, more languid and ineffectual.

If these things are allowed, many advantages must arise from such a diet,† as hath a direct tendency to support the patient in full health, and to assist the powers of nature to create, and support a discharge of laudable pus, the constant forerunner of a cure in every curable ulcer.

THE last article mentioned relates to MEDICINES, of which some notice has been taken already, but chiefly in a way of objection to some in general use; it will therefore be proper here to enlarge a little on the subject, wherein I hope not to forget the caution its importance requires. I know how easy, and how common a thing it is with some writers, in order to

* See Introduction, p. 8—13.

† Perhaps salted meats, and spirits, are the chief things to be interdicted.

support an opinion, to bear down their opponents on every occasion, by declaring facts to be on their own side; which they often do not, and sometimes, indeed, are not permitted, to produce. Such an argument, therefore, seldom comes with proper testimonials but from hospital practitioners, or must, at least, expect to stand or fall, according to the share of credit due to the writer. As far as that can go, however, in the present instance, I am encouraged to say, experience has led me to suspect, that less is to be hoped for, and much less is required from medicines, than is generally supposed; ulcers on the legs being, in general, mere local complaints, not connected with any particular disease of the system. It is possible, I may be somewhat singular in these opinions; whilst others have produced their experience to prove, that sore legs can only safely be cured by internal remedies. It is, however, by no means, my intention to assert, that medicines are never necessary for these, as well as other sores; but that they are frequently prescribed in a very indeterminate manner, and their effects are consequently uncertain. But should the patient labor under the true scurvy, or the ulcer follow the suppression of some periodical, or critical discharge, or the disappearance of a long continued eruption on the skin; these, beside other more common complaints, such as evident symptoms of a venereal infection, the presence of fever, &c. will constantly call for the physician's assistance, who will be at no loss to pursue a rational intention. In short, whatever is obviously wrong in the habit is to be corrected,
but

but where there is no peculiar indication, I neither know how to prescribe, nor to expect much benefit from medicines. If surgeons will reflect for a moment, they will perceive the import of this observation; let them consider only what are the medicines usually directed, which, perhaps, excepting only the bark and cathartics, are administered under the idea of alteratives, by which some people intend a class of medicines that will effect a certain change in the habit, without so much as an idea, what that change is to be. The patient has a sore; it looks ill, that is, it is not deterged, or will not continue so; the matter discharged from it is bad; or the ulcer is not disposed to heal up.—Let every thing be done in such a case, that has a tendency to mend the appearance of the sore upon rational principles, and which generally is done for sores on other parts of the body. Let recourse be had to suitable dressings; let the patient enjoy the air, moderate exercise,* and a proper diet; let a tight bandage be applied to brace and contract the sore, to keep down the fungus, remove callous edges, and prove a tonic to the part. If these things fail, such medicines should be administered as will brace the system, or correct its manifest defects—farther than this, I must say again, I have neither known their use, nor that frequent want of them which others complain of.†

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* CELSUS. *Lib. vii. Cap. 3.*

† By a modern *French* writer on this subject, we are advised, before the healing up of old ulcers, to correct the vitiated blood, and

Not that troubling patients with useless medicines, and the little unnecessary expence, of importance, indeed, to some people, are the principal objections on this head ; but the great mischief is, that in most cases, the surgeon's thoughts being hereby led off to a wrong object, he is diverted from an attention to the true means of affording relief. Instead, therefore, of making the most of the particular habit of each individual, by proper topical applications and general remedies, he is contriving how he may remove some imaginary, or at the most, some unknown complaint, or to cure a manifest dyscrasy, for which he is not likely to find an adequate remedy. But should the time come, when some real alterative, or peculiar tonic shall be discovered that may co-operate with the surgeon's designs, I shall be as ready as others to embrace it.

Wherever ulcers are connected with evident disease of the system, it has been granted, the assistance

and to purify it from the foreign leven with which it is infected. To this end he gives us six general indications.

“ 1. Si le malade a la verole, le scorbut, ou les écouelles. 2. Si le sang est chargé de bile. 3. Si le sang est âcre et salé sans être chargé de bile. 4. Si le sang pèche par être trop épais, et trop résineux, 5. Si l'on juge que le sang soit trop séreux. 6. En générale, il faut, dans tous les cas, purger souvent le malade, mais le purger doucement ; lui donner tous les jours une ou deux prises de quinquina ; et lui faire observer un régime exact, tant pour la quantité, que pour la qualité de la nourriture.”—If the reader can acquire any practical knowledge from the most of these indications, I must confess he has greatly the advantage of me.

of suitable medicines will be required; all that I mean to insist upon is, that this is not generally the case. The true scorbutic ulcer, attended with spongy gums, and other marks of putrescency of the fluids, does not very often occur in this Island, or at least in the neighbourhood of the metropolis; and the scrophulous very seldom attacks the legs in form of ulcers. The venereal, indeed, more frequently occurs, or at least, ulcers will partake of the poison, and I have seen also the cancerous, or something very like it; but as there will ever be, in these cases, something characteristic to their cause, the surgeon can seldom or never mistake them.

There are, indeed, many foul ulcers, which when of very long standing, are frequently assisted by medicine; but such generally attack the poor, who have either injured the constitution by hard drinking, or on the contrary, have been in want of almost the necessaries of life. In such cases, the bark is a tonic, (which is sometimes improved by the addition of sal martis) is of wonderful efficacy, and ought in many cases, to be given in much larger doses than it usually is; and in a few instances, for a considerable time.

There is another medicine, which from its popularity, seems to claim an attention, and perhaps has been of service in some cases, though I am not yet satisfied the sores would not have got well without it. This is the corrosive sublimate, which in very large, and old sores, has, in compliance with custom, been frequently administered with seeming success. But it is often improper for labouring men, who are

much out of doors, and for obvious reasons, more especially in winter. However, where these objections do not equally take place, every surgeon of experience will judge for himself, what advantages he may reasonably expect from the use of it.

Besides the cicuta, opium, and other internal remedies already hinted at, I shall here mention other three—a strong decoction of the woods, lime-water, and emetics. The first will be of service chiefly in cases of obstructed perspiration, and cutaneous eruptions, or the sudden disappearance of them; the lime-water, in the erisipelatous sore, (hereafter to be noticed) especially where a great part of the limb is infested with a scalding discharge, which takes off the skin wherever it runs. But we shall be disappointed, if we depend on this, or any other internal means; at least I have always found external applications much more effectual—Emetics, may sometimes be useful in some cacochymic habits, or where there is a cold phlegm on the stomach; and previous to the exhibition of tonics.

HAVING now attempted, at least, to answer some principal objections to the plan I have proposed, and explained what may be expected from it, with the manner in which the effect is produced, it is high time to proceed to a more particular application of it.

In order to this, it will be necessary to make some Distinctions of ulcers, since the general indications cannot be alike applicable to all.* Perhaps this

* See Introd. p. 4, 5.

might have appeared, with much more propriety, in a former part of the work, but it seemed of importance to be fully understood as I went on, and to obviate, as they occurred, the difficulties of an attempt to introduce so considerable an innovation in practice. On this account, I have preferred this desultory mode to a more concise and formal method; but should I so far succeed, as to point out a practice which others can with safety adopt, and furnish the ingenious with hints that may be depended upon, it is hoped, that some, or even many defects in other things will be overlooked.

THE numerous classes of ulcers, of which writers have treated in so many distinct chapters, seem more calculated to display the ingenuity of authors, than to lead to any useful discrimination; and must therefore tend to perplex those whom they ought to instruct. Such distinctions are taken chiefly from certain accidental appearances of the sore, and the nature of the discharge; but are most of them so made as to have very little relation to practice, when applied to ulcers on the legs. Whether, indeed, ulcers are indolent or painful, fungous or callous, moist or dry, or discharge ichor, or sanies, amounts to little more than that their surface is in an ill-conditioned state, can make only an accidental, and no essential difference in the grand indications of cure: all such circumstances being mere symptoms, requiring only a temporary attention, and not characteristic of a difference in species.

The most easy and practical division I have been

able to make, will be to consider them under two heads only, which are calculated to illustrate the preceding observations, and correspond with the more essential points of difference in the treatment they will require.

The first Class will include ulcers attended with great enlargement, or hardness of the limb; recent ulcers originating from an abscess, or any internal complaint; and every very old ulcer of a moderate size, especially in habits accustomed to them.

The Second comprehends the true phagedenic ulcer; superficial ulcers where the surrounding skin is excoriated by an excessive and acrid discharge; various large ones in very old people, or those of a relaxed fibre and habit, and all *very* large ulcers with a pale and loose surface, generally the consequence of bad health, poverty, or neglect.

In speaking of each of these, it will be necessary to make such enlargements and subdivisions, as may relate to practical use.

And first, it will be proper to observe, there are two general affections, or symptoms, every ulcer is liable to, which will require their particular treatment. These are inflammation and pain; for each of which it will be necessary to lay down some general rules.

With respect to inflammation, should this attend a large sore, where the pain is very considerable, (for the pain so common in very small ulcers, is seldom the consequence of much inflammation, but rather of a thin and caustic discharge;) an emollient fomentation

tation of white poppy heads, and afterwards a bread and milk poultice for a few days, may be applied to advantage: but if such a case can arise as to require a much longer continuance of a poultice, it should be changed for one of the saturnine kind. This will furnish the same moisture and heat, and is not only a less relaxing application, (for such it has been observed, should never be very long continued to the legs*) but is a more powerful antiphlogistic. And here I may venture to repeat from a long experience, that such poultices and fomentations, however great their reputation, are seldom necessary but in the beginning of the cure, where the parts are in a state of inflammation, and particularly in the poor, who have long endured, and stood much upon them in that state; whose skin is likewise often dry and left dirty, and its pores consequently obstructed. But as soon as the inflammation and foulness on the skin are taken off, strong digestives, with exercise and a roller, will produce a much speedier and better digestion.†—This I am so satisfied of, that I have no kind of hesitation in speaking peremptorily on the subject.

I wish to make one remark more on this head, which is, that when a bread and milk poultice is required, it should generally be applied on the naked

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* See also BELL, *On Ulcers*.

† WISEMAN gives a case very much in point, and observes, that after confining a patient to the bed for a very bad ulcer, which
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fore,* whereby it fits easier, and is much more useful, becoming the mildest application that was ever contrived, if it be well made.† And I hope I shall be pardoned if I add, it ought generally to be made, and

he had poulticed a considerable time, he could not get it to heal till he left off the poultice, and applied a laced stocking. *Book ii. ch. 9.*

* See FREKE's *Art of Healing*.

† When I consider the importance of a good poultice to ulcers, when the use of them is called for, and the number of pupils who visit the metropolis every year, with an express design of acquiring every kind of chirurgical knowledge, many of whom there is reason to think, have rarely seen a bread and milk poultice properly made; it is hoped, it will not be thought trifling on this occasion to mention the best method of making it. This can be at the worst, but a little time thrown away, and if only one young practitioner should make a better poultice by this means, or if a single patient be benefited by it, I shall readily forgive others who may smile at the receipt; for however well surgeons know how to make them, the fact is, they are seldom well made.—It has been too generally thought, that these poultices cannot be boiled too long; but on the contrary, it is long boiling that spoils them. They should be made of the crumb of moderately stale bread, which should be cleared from every thing the least hard, or lumpy, and after being grated, should be rubbed between the hands, till reduced, as near as possible, to its first state of flour. The milk should then be boiled, and the bread lightly sprinkled in with one hand, whilst it is kept stirring with the other. The difficulty with which the spoon is moved, will shew when a proper quantity of bread is put in, after which it should not remain on the fire above two or three minutes at most, and should be turned out boiling, by which means the bottom will retain its heat a long time, after its
sulfate

and applied by the surgeon himself, or at least in his presence, and not intrusted to a careless servant, or ignorant nurse, as it usually is; the former of whom imagines no skill is required, and the latter, that no body can make one so well as herself; though there is not one poultice in fifty, made and applied by either of them, that is properly managed. Before I quit this subject, I cannot help adding, that if much benefit is expected from these applications, they should in many cases be renewed oftener than they generally are: for the want of this, the smaller ones especially, soon becoming cold, I am satisfied, are often likely to occasion more injury than good.

These, it is well known, are the cases which call for bleeding and purging, and for which I have likewise sometimes advised nitre and cicuta,* or opium; the

surface is become cool enough to allow of its application. It should be spread upon a piece of double linen cloth, (not over fine) by the help of a round-ended knife (greased with hog's lard or oil, instead of putting grease into it, which prevents its hanging together,) to the size it is required: and should generally be about three quarters of an inch in thickness on the linen. If poultices are too stiff or lumpy, they will lie heavy, and become painful to an inflamed part; if too thin, or not well mixed into an homogeneous mass, they soon become cold, and chill the part they are intended to nourish.—If a poultice is to be applied to a depending part, such as the eye or the breast, where it will be apt to slip off, it will be an advantage to turn up the four sides of the inner cloth, about half an inch over the poultice; which will thereby be greatly supported.

* This may sometimes have one advantage of opium, as it hath no tendency to constipate the bowels, and if it has any other virtues

the last, however, will be less proper if the inflammation be considerable ; but the antiphlogistic regimen can never be required very long, for if the inflammation does not presently yield, there is probably some other cause for it than the ulcer, unless there be disease of the bone. The former, it will be the physician's province to discover and remove ; but if neither of these should be the case, and yet the inflammation continue, it will not prove of the phlegmonous kind, and I can venture to say will yield together with the pain, to such topical applications as shall promote a discharge, and with the assistance of firm bandage and exercise, shall cleanse or destroy the too sensible surface ; which will immediately be followed by ease, and a healthy appearance of the fore.

It may be necessary in this place, to take notice of a source of pain not mentioned, that I know of, by any writer, and for a clear account of which I am obliged principally to an ingenious correspondent in the country, since the first edition of this tract ; having myself observed it only once, in any considerable degree. This is an obscure œdema, more commonly attending small sores, and occasioning very great pain about the little ulcers, or not unfrequently along the whole spine of the tibia, especially in the morning ; and is effectually cured by only applying the bandage a little tighter than usual. It may be met

virtues than that of an anodyne, as some people have been of opinion, the patient will enjoy the advantage of them.

with

with not only in large and tumid limbs, but in very well shaped legs, where the œdema is not perceptible to the eye, but may always be discovered by a careful examination with the finger.—As I have rarely allowed any of my patients to apply the bandage themselves, and have always been careful of drawing it tight, it is not likely this painful œdema should have often fallen in my way. The single instance I met with, however, has borne such direct testimony to the observation of my correspondent, (who is often obliged to allow distant patients to dress their own sores for several days together), that it could not but appear to me as highly improper to overlook an observation, from which it is probable many patients may be benefited.

After what has been said, another observation or two respecting the symptom of pain, is all that will be necessary. And here I remark, that severe pain must be mitigated, if it cannot be entirely removed, or nothing will go on well; whilst the degree of pain, together with the nature of the discharge, will point out the most proper remedy for it; the quantity of the anodyne, is therefore not so much to be attended to, as its effects. I have known excruciating pain from small ulcers, almost entirely removed by half a grain of opium, taken only every other night, whilst at other times, three or four grains have given but little relief.

In these cases, the discharge is always thin and acrid; and though such vitiated matter may arise from the morbid state of the solids, and of the secretory

tory organs of the parts, which throw off such kind of fluids as cannot be changed into laudable pus, yet this does not certainly arise from an inflammatory cause, and therefore is not always removed by antiphlogistics, and mere emollient applications; though it ever will be so, when that is the case. But if the habit is not particularly concerned, it depends more frequently upon a want of that species, or degree of inflammation, which is necessary to produce well concocted pus,* which is therefore often induced by stimulating applications, which are the most safe and rational means of promoting it, and will, in this case also, as certainly be followed by a cessation of the pain.† And herein we go back as far as relates to ulcers on the legs, to the practice of the antients,‡

* La seconde cause (du défaut de suppuration) est le défaut d'inflammation dans la playe. *Traité des Ulceres, &c.*

† PAREY speaks exactly to this purpose in the cure of ulcers, *lib. xii. cap. 9.* where after having directed cataplasms of solanum, cicuta, poppey seeds, and sometimes opium; should these fail to procure ease in some cases, he adds, “neque anodynis, neque narcoticis, sedari poteris, imò blandis medicamentis appositis magis ac magis irritabitur. Itaque ad catherætica confugiendum erit, nempe fortibus morbis fortia remedia sunt optima. Quare ulceri imponatur pulvillus forti et viribus aucto egyptiaco, aut paulo oleo chalcanti imbutus, his enim domandi efferi illius doloris vis est.” To this he adds, “interim ulceri circumponetur refrigerantia, ne virium remediorum vehementia fluxionem excitet.”—But this latter is greatly obviated by the use of a proper roller.

‡ See GALEN, particularly his book *De Composit. Medicament. secundum Genera*, and CELSUS. *Lib. v. cap. 26.*

whose

whose ointments, it has been noticed, generally consisted of the warm gums, spirits, and escharotics, which though, in many cases, justly exploded from practice, in the treatment of ulcers in general,* are of admirable efficacy, in such as attack the lower extremities.

What has been said will probably be quite sufficient on these heads; we have here manifest indications before us, and the remedies are therefore usually simple and obvious—not always thought equally evident, through the whole indications of cure.

SYSTEMATICAL writers, who have been fond of multiplying distinctions of ulcers, have been equally precise in their directions for obtaining a cure.† We are to digest, deterge, incarn, and cicatrize; sinuses are to be laid open, callous edges are to be removed by the knife, or destroyed by the actual or potential cautery; some intemperies is to be corrected, or the whole habit to be altered: and above all, they advise a horizontal position of the limb, and

* See BELL, On Ulcers, who has made several very useful observations on this head, though the *French* surgeons are still of a different opinion, (as appears from their 4th volume of *Memoires de Chirurgie*), and indeed some latitude must be allowed; for the fact is, that in the cure of every ulcer, as of fever, a certain degree of inflammation, or exertion of the system is necessary; and too little, or an undue effort, does as certainly, though upon a different principle from Plethora, frustrate the salutary intentions of nature.

† Compositi ulceris ad curationem multæ sunt indicationes propositæ.

PAREY.

injoin

injoin absolute rest. The whole process of cure is most accurately delineated, and some apposite remedy prescribed to effect every intention, as if art were sufficient for it all, and nature had nothing to do in the business. And indeed, were ulcers such very tractable, methodical things, as the picture represents, memory might supply the place of judgment, and this part of surgery would be reduced to arithmetical exactness. But he whom practice has made most conversant with nature, well knows that her operations and the arrangements of science too little resemble each other.

It is universally admitted, however, that except an ulcer becomes clean, it will not cicatrize, though practitioners are not so well agreed, concerning the best means of bringing it about. But we are always to know our proper place, art being in this, and in every other instance, a mere hand-maid to nature, to lend assistance in a way the most agreeable to her own laws. In the introduction to this little work, an attempt has been made to reduce the principles of the cure of ulcers to two only, viz. an attention to the general vigor of the constitution, and to the action of the parts; but with this view, it may be necessary to pay some regard to the nature of the different processes that are going on in the healing of every ulcer. There is, it has been intimated, a production of new substance in its cavity, and a condensation of its surrounding parts to a certain level and extent. The former of these, indeed, is, I believe, very inconsiderable; it is, however, by the union of the two, that

that nature accomplishes her end. That these processes do take place, may be known by an examination of the substance which is formed in the cavity of every cicatrized ulcer; and by the apparent evenness of the newly formed cicatrice with the neighbouring parts. And every one must have observed, that the loss of substance is more evident at some months distance from the time of cure,* than on the first healing of the sore.

Now, if the principles I have all along been laying down, as well as those last mentioned, are at all just and rational, they will at once serve to discover the impropriety of depending upon very mild applications,† whilst they enforce the expediency of the means I have recommended.

The cure, it has been said, is brought about by the general vigor of the system, and the action of the the parts, together with an absorption of those contiguous to the ulcer, the most apposite to which in-

* This observation has been long made in the case of those foveolæ which remain after the small-pox.

† Perhaps the very best of these is the suppurative poultice so much recommended by Mr. FREKE, but it does nothing without the horizontal position of the limb; and has even then been too frequently ineffectual, or it is probable, would not have been discarded from hospital practice. His intention, however, was perfectly rational, which was, “to sweat out the disease:” an idea I have always had in view, in opposition to that of drying up distempered parts; which must always be wrong. But the former intention may be much better accomplished by other means, that do not require rest and confinement.

dications, are good diet, exercise and bandage, with the external use of invigorating applications. And how much may be effected by them, experience alone can demonstrate, and it is a principal design of this treatise to set forth. I am happy, however, to find an author of considerable esteem, and amongst the best of the later practitioners, so much of my mind, I mean *Wiseman*, who had continual recourse to warm and active applications, and rarely dressed an ulcer on the leg in the first stage of the cure, without merc. corrosiv. ruber in one form or other. By this means, and the help of a roller, or laced-socking, he succeeded much better than most practitioners have done since, with all our improvements.* And I am satisfied from what I have experienced, that had he allowed his patients to walk, and by the help of a flannel roller, had made a still tighter compression than the laced-socking can pleasantly admit, or indeed can effect, and had been yet bolder in the use of stimulating applications, he had not had reason to

* Notwithstanding all sciences have been improved by reducing them to a state of simplicity, yet, in an attempt to purify them, artists have been sometimes led to overlook the principles on which some practice has been founded, and have therefore discarded many things that were valuable—like some unprincipled empiric, who in order to get rid of an imaginary ill-humor in the blood, directs so large a quantity to be taken away, as reduces his patient to a worse disease than he laboured under before; forgetting that the good and bad blood would run out together.

See *Thoughts upon Amputation* by Dr. KIRKLAND.

complain

complain, that healing some kind of ulcers was in general only a palliative cure. For it has been very evident in reading his cases, and comparing them with my own experience, that the principal things which he failed in (besides forbidding his patients to walk, which it should seem, was not, however, always the case) was the not continuing his stimulating applications much longer than he did, and his changing them for very drying ones in the end, in order to hasten the formation of the cicatrice. See his cases, in chap. x. particularly ; in reading which, I could not avoid being surprized he had not himself made the remark. The like observations may be made on *Dr. Turner*, who was in many respects but a copyer from him, but in others, seems to have had an advantage ; and had he been well acquainted with the use of the roller, and been less fond of abstinence and rest, would have set an example, which after-practitioners would have made but little improvements on.

THESE things then, viz. Exercise, Bandage, and active Applications, may be solely depended upon in ordinary cases ; and where there is no specific poison, or other manifest evil in the habit, they will effect every thing in this class of ulcers, which art hath hitherto accomplished by rest, diet, and medicine ; and will moreover effect such a cure as will stand through all the ordinary situations of life.

Any common digestive is rendered deterfive in the degree it may be thought fit, by the addition of a little calomel, corrosive sublimate, the white, or red

precipitate, or by a small portion of verdigrease ; or we have a very excellent one ready made to our hands, the unguent. citrinum : but, however uncommon the practice, it is sometimes better to use the red precipitate alone in the first stage of the cure, than to mix it with the digestive ; and this the ulcer will also readily bear, when exercise, and a good diet are allowed. And here it is, that the judgment of the surgeon discovers itself, in adapting his dressings to the nature of the ulcer, which (laying aside the refinements, and nice distinctions I have ventured to discard,) must by one mean or other, be brought to discharge laudable pus, whatever appearance its surface may have ; for nothing goes on well till this is effected. On the other hand, surgeons have generally been too easily satisfied, especially in regard to old sores ; and if the ulcer has but appeared clean, it has been presumed, that all has been going on well. To this end, therefore, various trifling applications have been made use of, such as washing with a strong decoction of hemlock, dressing the ulcer with the gastric juice, and other light stimulants, or astringents, or covering it with sedative and emollient poultices. But all this is inviting a sore to heal up at any rate, and by leaving the disease at the bottom, has insured its breaking out again. But not only must the surface be clean, but the granulations firm, and such a plentiful digestion promoted, as may liberate the vessels, restore the due tone of the parts, and furnish laudable pus. This, the most inveterate ulcers on the legs may be brought to afford, as freely as
sores

fores seated any where else; unless, perhaps, those on the head are excepted, which, I think, furnish us more perfectly *album, laeve, et æquale*, than those of any other part.

Probably nothing but experience can induce any one to think, how easily this may, in ordinary cases, be effected by powerful digestives, and exercise, and how soon afterwards many troublesome fores put on a proper appearance, and are brought into a healthy, and healing condition. But where these things fail, recourse must be had to more powerful means,* and such as no surgeon is ever at a loss for; which if freely applied, interposing lenient applications if the appearance of the fore seems to demand them,† will destroy the foul surface, and give nature (assisted by a good diet) an opportunity to exert herself; and as *Hoffman* says on this very occasion," *ex voto succedit consolidatio.*"

Perhaps, one of the best applications of this kind, is the *merc. cor. ruber* very finely levigated; this is peculiarly useful in some small and obstinate ulcers presently to be noticed, nor will it be immediately suspected, with what freedom, and frequency this

* "Vulnera maligniora valentioribus egent remediis; imbecillioribus, autem, mitiora."

GALEN. *De Compend. Med. Lib. iv.*

† In cases wherein the author has made use of any remedies out of the common way, he has in this edition pointed them out, and described the kind of fores that may call for their use; though in this class of ulcers such instances are very few.

active mineral may be applied. It may be said of this, as *Hippocrates* says of frictions, that it softens the hard, strengthens the relaxed fibres, destroys the unsound, stimulates and elevates the growing flesh; that it promotes, or diminishes discharge, and keeps open, or heals up the ulcer, just as you would direct it. Nor is this saying too much of it, with respect to a great number of cases, for all this is a very certain consequence of a proper use of it, where a tight bandage is applied, and adequate exercise allowed. But then, it has been hinted that, for some of these purposes, (which will hereafter be specified) it must be used with great freedom, and be often repeated, and instead of being lightly sprinkled over an ill-conditioned surface, the ulcer must be filled * with it, the surgeon taking up a large pinch of it, and plugging up the sore.

It has been said, that the above practice is particularly useful in many small ulcers; but even in large sores, something of the same kind will be found necessary. The foul surface must be removed, and the sore brought to the state of a fresh wound, which can be done only by the distempered parts being melted

* While I was engaged in drawing up this little tract, I chanced to meet with more authority for the above practice than I expected, for looking over *WISEMAN*, I found him making use of the very expression; to which practice, I am satisfied, he, as well as *Dr. TURNER*, owed much of their success. The former tells us he performed cures on the legs in as few weeks, as the patients had been years under the hands of those he calls the barber surgeons of the time. *Book. ii. ch. 9.*

down (as it is usually said) by powerful digestives, or destroyed by corrosives; and till this be done, some obstacle or other will continually arise,* but this once effected, you remove the greatest hinderance to the cure. And it may be more easily done than is generally imagined, and though the succeeding surface should put on the same unpleasant appearance, after the first, or even second application, yet the amendment, though gradual, is certain, and the pain is less severe than might be expected. The digestives are still continued when the escharotics are left off, and the parts being, by these means, put into action, in general nothing farther is required, than to wait till nature is able to accomplish her proper work. The want of this ability, or occasion to exert herself, is the grand impediment to the cure, but this restored once and again, will effect every thing that is required.†

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* *Ulceribus* haud diligenter deterfis, hyperfarcosis supervenire solet. PAREY, *De Ulceribus*.—See also RHAZES, *Lib. Divis. cap.* 134, 138. In which case (says a modern writer) “the granulations are either soft and spongy, and arise only from the surface of the ulcer, or else rise too high in the form of fungus, or soon ceasing to shoot, are not followed by a disposition to form a cicatrice; or if the ulcer heals, it soon breaks out again.”

† From the very judicious observations on the *Malvern-waters* with cases annexed, published by Dr. WALL, it should appear, that the good effects produced by them on ulcers of the legs, have arisen from their volatile spirit. Such an idea agrees very well with the theory I have adopted, and which every day's experience has confirmed. Dr. WALL, indeed, in one place speaks of the coldness, and astringency of the *Malvern-waters* externally applied,

Besides the abovementioned use of the precipitate, for the purpose of bringing foul ulcers into a good state, it is not unfrequently necessary in order to preserve them so, and to promote incarnation; and even in this view, it often answers much better by being sprinkled upon the sore, than mixed up with the digestive. I know how much that mode has been objected to by the late *Mr. Sharp*, who both as a writer and practitioner, I should be more inclined to envy than to censure. Nevertheless, experience is the best testimony, and has demonstrated to me how much, and to how great advantage, ulcers on the legs will endure the use of precipitate. Perhaps, an inattention to this, has been one occasion of the very unfavourable opinion surgeons have always entertained of sore legs, and of the difficulty of their cure; but so various are the instances I have seen of the specific power of precipitate, in different kinds of ulcers, where every common application had been used to no purpose, that I can recommend it with more confidence than ever. I do not speak merely of foul, or callous ulcers, but of those very aptly denominated *dyssepulotic*, wherein nothing has appeared particularly amiss, but there has been no

applied, but this is only an opinion he has taken up from some cases, in which they had not proved beneficial; for he observes, they often occasion so great heat in the part as to induce suppuration in cold tumors, and that in almost every case where they have been useful, they have raised more or less inflammation, and have often occasioned very considerable pain for some days.

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disposition to heal. The surface of such sores has sometimes been glassy, and the edges sharp and angular as if newly divided with a knife; without the least disposition to granulate or incarn, but at the same time not of that irritable nature which inclines them to spread; which I shall speak of under the next head. The free use of the precipitate, for four or five days, though it has, indeed, sometimes produced little sloughs, which, however, have not seemed to render the sores deeper, has put the atonic parts into action, and like the exhibition of the cortex on similar occasions, has removed every unkindly appearance, produced a discharge of good pus, and disposed the ulcer to heal. I have already hinted in another place,* that this stands no longer on my authority; the accounts I have been favored with from different practitioners, both here and on the Continent, since the former edition of this treatise, bear a direct testimony to the advantages the Public has derived from the hints I then ventured to throw out. Patients have also been treated in this way in different hospitals, where the good appearance of large ulcers, repeatedly covered with precipitate, has fully answered every expectation I had formed, or had previously experienced in my own practice. Some considerable knowledge in the profession, as well as experience of this plan, and attention to the effects of the remedies, are, indeed, essentially necessary, by which alone the practitioner can be enabled

* Additional Preface to this Edition.

to judge how long he may continue the bold use of so active an application: for it sometimes happens, that one day too long will offend a sore that has been inexpressibly benefited by its use; whereby the cure will be retarded. And if the plan has met with less success in hospitals than in private practice, it is not unfair to attribute much of this, not only to the foul air of the wards, and the improper manner in which (it has been noticed) a tight bandage is sometimes applied, but to the inattention or ignorance of some of the pupils in this respect; it being impossible for the surgeon, in every case, to lay down rules sufficiently precise for the pupils to follow, which constrains him to submit lesser things to the temporary discretion of the dressers.

HAVING so fully stated, and endeavoured to defend the principles and practice laid down, it remains only to collect them into one point of view; and then to select a few of the varieties of ulcers to be met with in this class, with the treatment of each, as illustrative of the several indications and remedies proposed. And to this end, it seems only necessary that the reader should be reminded of what has all along been observed of the peculiar circumstances of sores on the lower extremities, and of the causes and operation of these peculiarities.—To obviate the force of these, by proper bandage, and other suitable topical applications, and general remedies, tending to remove, or correct, the atony, and other ill-dispositions of the parts, and both enable them, and the system at large, to make such well-directed and salutary exertions

tions as shall place ulcers, so seated, in circumstances as similar as may be to those on other parts of the body, has been the leading idea throughout this work. How far this reasoning may have been just, or the means above pointed out may appear rational and adequate, the reader himself is now called upon to decide; whilst the author, for his part, has the satisfaction of thinking, that success has, at least, justified his attempt, and given some sanction to the practice he ventures to recommend.

AMONGST the few instances to be selected from particular cases, is a small ulcer, frequently hinted at, and for which, after every other mean has failed, the precipitate, or other escharotic is a specific. It is improperly accounted scorbutic, and particularly affects the parts about, and even below, the ankles; which, indeed, cannot therefore properly be called a fore leg. This is exquisitely painful, and for some time appeared difficult of cure without resting the limb, so little advantage being obtained from the roller; which cannot be made to afford much compression below the seat of the sore. It was in these cases more especially, that *Wiseman* preferred a laced-socking, because (as he tells us) he “could not with a roller make a suitable compression so near the ankle, without causing a swelling on the foot.” But this is certainly a mistake, for having, at first, found the same difficulty, I was soon able to remedy it, by carrying the roller several times over the ankle and foot, so as to leave no part but just the point of the heel uncovered by the roller; and by this means, I
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also make a tolerable compression below the ulcer itself: to which intentions, the circumstance of the roller being made of flannel, very greatly contributes. These cases are often attended with a considerable puffiness, and a tetters appearance of the surrounding skin, accompanied with a thin and acrid discharge, which renders the parts additionally tender; whilst the little ulcer is almost perfectly dry, and cannot easily be brought to suppuration, till the complaint of the skin is removed. This I once thought was relieved by bathing the parts in *Nevilbolt* water, as lately recommended for this purpose, but I soon learnt, is much more speedily removed by drying applications, which instead of the common cerate, may be spread on lint, or linen cloth, and applied over the usual dressing to the sore; for which common treacle is often a very good one, as well as for many other irritable ulcers. The outer dressing may consist of cerat. alb. with bole and powdered allum; or the ung. desiccativ. rubrum, or in more obstinate cases, a compress of linen may be wetted in a solution of sacch. saturn. and vitr. alb. with an ounce or two of camphorated spirit, in a pint of spring water; which, notwithstanding the tumor, and heated appearance of the part, I never found disagree.* If the sore should not soon change its

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* These affections of the skin, vulgarly called scorbutic, have usually no one symptom of that dismal complaint, and being merely local, should always be treated as a disease of the skin; for true scorbutic

complexion, on the disappearance of the affection of the skin, the little ulcer should be filled with precipitate,* pulv. angel. dissolved lunar caustic, or any similar escharotic, and when the slough is come out, be immediately repeated, if the sore should not then put on a kindly appearance, which it certainly will in a very little time; but the cure will not stand if this be neglected. But though so much has been said on the bold use of very deterfive, and even escharotic applications, it is to be remembered, that recourse need not always be had to them in the first instance; but whenever less active means, aided by the bandage and exercise, shall prove ineffectual, I rest it upon every man's experience to demonstrate the utility of them.

There is nothing I can be more satisfied of, than the propriety of the method here recommended. There is no small sore on the leg usually so trouble-

scorbutic ulcers are of a very different kind, and will not endure the use of escharotics. See Dr. CULLEN's *Synop. Nosolog.* also Dr. LIND, on this disease. *Part ii. chap. 2.*

* WISEMAN speaking of such an ulcer, has this bold expression, which I doubt not was the result of experience, "the best anodyne had been to have filled it with precipitate." *Book ii. ch. 4.*—He was not afraid of the consequence mentioned by *Hippocrates*, or knew better how to distinguish cases, than to be in any danger of the evil he mentions; who says, "Thrinon Damonis filius, habebat malleolum ulcus, juxta nervum sane non purum, huic a pharmaco corrosivo contigit, ut opisthotonos moretur."

Epidem. Lib. v.

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some to heal, by ordinary means, as an old ulcer near the ankle, and there are scarce any of the antient writers but mention it as such; whereas, there is no ulcer on the leg, that is so easily, soon, and certainly cured, when properly treated. The numbers, and variety I have seen, leave me no room for doubt on this head; of which some have been from three to thirty years standing, breaking out again as constantly as they were healed, and inexpressibly painful. But if not of the phagedenic kind (of which I shall treat in another place) are perfectly cured, in a few weeks, by taking much exercise, and dressing with the warmest digestives, or (where these fail) by a free use of precipitate, and a bandage. This may be very tightly applied, if no true inflammation attends, or as soon as this shall be removed by bleeding, and a few days application of *Freke's* suppurative poultice;* which it will be sometimes proper to begin with, if the ulcer is deep.

Since the former edition, I have had an instance of the efficacy of the precipitate, in a sore on my own ankle occasioned by a burn. A small and very painful little eschar was formed, which, after I was tired of poultices and other emollient applications, and common digestives, I loaded with precipitate twice a day, and applied a tight flannel roller; which I should have done sooner, had it not been so recent a sore. The small size, and dryness of the ulcer, in-

* See his *Art of Healing*—his poultice consisted of figs, onions, marshmallows, and white lily roots.

duced me to dress it so often ; and by this means, a kindly suppuration soon took place, which separated the slough. Imagining, now, the little ulcer might be healed by any common means, I made use only of a few turns of a linen roller, to secure the dressings, and for several days, applied nothing but ceratum album, and afterwards, common digestives ; but one slough formed after another, whilst under this course. I then returned to my flannel roller and dressed again with precipitate, which I sprinkled on the sore every day. After this no more sloughs appeared, and the ulcer healed kindly, under the constant use of the precipitate.

There is another species of small ulcers, accounted difficult to heal, that is likewise, improperly, termed scorbutic, and is exceedingly painful, though without any tumor of the limb ; and sometimes attacks young and robust people. These sores are dispersed over a great part of the leg, particularly along the spine of the tibia ; are generally round, and rather deep, with thickened edges ; and are often not larger than peas : whosoever has once noticed them, will readily distinguish them from every other sore. Though difficult to be healed, and disposed to break out again, as they certainly are, when treated upon the lenient plan, frequently nothing more is necessary than to bathe the limb for a few nights in tepid salt and water ; to dress the ulcers with precipitate and digestive, and apply a very tight bandage, which immediately removes the pain ; and I have known such ulcers, though of long standing, perfectly healed
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in ten or twelve days. Should others, however, prove obstinate, from having their seat on more tendinous parts of the leg, the ointment must be made more active by the addition of a little lapis infernalis; which forms an admirable dressing for many dysepulotic sores.

There are other small old ulcers, which often require a peculiar kind of dressing, merely from their being seated on tendinous or ligamentous surfaces, such as the instep and lower parts of the leg. On this head, I need only to observe, that common treacle with fresh lemon juice boiled up in it, agrees with them so well, that they require nothing more, unless it be to have the surrounding parts touched with a lotion of the tinctur. martis cum spir. salis, sufficiently diluted; both which applications should be continued as long as the sores remain in a very irritable state. I shall just remark, that the like dressings agree equally well with many foul ulcers, that are irritated with most other dressings.

I have also met with other deep, and painful ulcers, somewhat larger, of no regular figure, nor confined to any particular parts, for which the fine powder of bark is often a good dressing. After the ulcer has been filled with this, morning and night for a few days, and covered with a good digestive, such sores will begin to fill up with firm and florid granulations, and will lose their morbid sensibility; but if they should not, the surface must be destroyed by precipitate, as formerly directed, and trial made again of the bark, if it should seem to be necessary.

IN ulcers of long standing, and where the constitution is thought to be concerned, it sometimes happens that besides a large sore, the leg shall be exceedingly swelled, with hard tumors, or lumps, in one or more parts of it, which will not always be dissolved by the discharge. But while this is kept up, the application of a large piece of oil'd-silk will produce the happiest effects, and with safety disperse the indurations. And as it sometimes happens, that the other leg will be equally swollen, and exceedingly hard, though without ulceration, that should likewise be rolled, and covered with a like piece of oil'd-silk; which, by exercise, will daily produce a considerable perspiration, and without the least assistance from medicine, will bring down the hardness and swelling, by the time the ulcer on the other is healed. This direction, however trifling it may appear, I have found such evident advantage from, that I think I should not have done justice to my subject, if I had not made particular mention of it. For the like purpose, the leg may be well rubbed with volatile liniment and about an eighth part of mercurial ointment; but I think, I have never found occasion to have recourse to any embrocation for this species of swollen leg, since I first made use of the flannel roller and oil'd-silk.

HAVING now said every thing that can be necessary, with respect to cleansing and incarning, and pointed out a few useful medicines, and some particular cases in this class of ulcers, I shall close it with some observations on healing; an article
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of as much importance, as any that has been noticed.

This last process of nature is by no means to be hurried ; and if every thing is right, and the bottom of the ulcer become sound, no particular means will be required for it, it being, in general, sufficiently disposed to heal of itself, and will, even with the use of ointments not a little deterfive.* For it is supposed (as will soon be explained), the more active ones have been weakened already, but not so much as to become mere greasy applications ; which (especially warmed ones,†) upon this plan, do as much injury, by relaxing the parts, as do very drying applications, when used to hasten the production of the cicatrice.

If this latter be attempted too soon, and especially if early recourse be had to drying applications, the surgeon will soon perceive his mistake. The ulcer being only partially digested, like those treated upon the lenient plan, when apparently about to heal up, will burst out in one form or other. This will especially follow in those termed constitutional sores, attended with diseased skin, and of very long standing. Here small ulcers will be formed in the distempered parts of the skin, which in a while becomes pappy, and denotes the parts underneath to be un-

* WISEMAN particularly notes having cleansed, incarned, and healed ulcers on the legs, by the use of precipitate.

† See BELL, *On Ulcers*, in regard to the relaxing nature of warmed applications. *Medio tutissimus ibis.*

sound.

found. Hence matter may be forced up by pressure, through many little orifices, putting on such an appearance of disease throughout a great surface of the limb, as may discourage the surgeon from expecting a cure, without a great length of time, and assistance from rest. But all will go well notwithstanding, under the advantage of good rolling and exercise, if the discharge be kept up; for the exercise, instead of protracting the cure, I am satisfied, tends in such cases, directly to ensure it; and I accordingly always desire it may be increased. All that can be necessary, is to lay the small contiguous sores into one, by a slight touch of the lancet, which will afford very little pain, as the parts are now become perfectly sodden, and the skin parted from the edges of the sore; or should this be objected to by the patient, the little holes may be filled up, once or more, with precipitate, and the cure will go on as effectually, and almost as speedily as could be wished.

It was said, the digestive or other dressing, after a time may be weakened, and this may be done without improperly diminishing that discharge, which it has so often been insisted upon ought to be kept up: for when the most active remedies have been used, in bad cases, for two or three weeks, the stimulus from exercise will sufficiently maintain it; and it is a good maxim to proceed gradually to that change between a copious discharge, and its total suppression, which should be always kept in view through the whole of the cure.

As soon then as the sore, however large, puts on
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a perfectly healthy appearance, this change in the dressing should begin, which should be repeatedly weakened, three or four times, at such intervals as the size of the sore, and the time supposed necessary for its cure, shall point out. But great caution is required not to be too hasty in this, or to continue it, if the discharge is still very considerable. An attempt to suppress this is always improper, and if it succeeds, will, indeed, divert the discharge some other way for a time, but without any advantage to the patient; and the matter instead of bursting through the skin, where that happens to be diseased, will form a passage in different places through the surface of the sore. In this case, the bandage should be drawn tighter below the seat of the ulcer, and the matter by pressure with the fingers, at each dressing, should be carefully forced up; the surgeon must likewise return to more active applications, by which the sore will soon recover a more pleasant appearance. But if no such change should presently take place, either more time is required to cleanse some distempered parts in the ulcer, or else the whole sore is unsound to the bottom. In the former case, time, it has been said, will do every thing that is wanted; but if it does not, recourse must be had again to escharotics, which, if the bone be not diseased, will invigorate the parts, and soon improve the discharge; or if stronger be used, a thick slough will be made, and the surface, the moment that is thrown off, will be clean, and will put on a promising appearance again.

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Upon this head it may be proper to observe, that when large and old ulcers are brought to a copious discharge, whilst the surgeon, from their unkindly nature, is afraid of too hastily weakening his dressings, though the ulcer may be very considerably diminished in size, it will often be proper to defend its tender edges, and new skin, as it is called, with a little cerat. epulot. or some similar application. But it may be still better, in very irritable ulcers, and such as are much indisposed to heal, to spread a margin of cerate on the same dressing, that the whole may be covered with one piece of lint, by which means the discharge finds a readier way to run off; a matter of the greatest importance in such ulcers as are easily offended. The pledgit, for this reason, should likewise extend considerably beyond the surface of the sore, especially in small ulcers, or the tightness of the bandage will prevent the matter from escaping, and thereby occasion a continual irritation, which will dispose the ulcer to spread.* But though

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* The doctrine here inculcated, though founded upon repeated facts, I find strongly controverted by MR. HUNTER—"When treating of pus, in my lectures" (says that able teacher) "I observed, that I was inclined to believe that no matter, of *whatever kind*, can produce any except upon the part that formed it: nor do I believe that the matter of *any* sore, *let it be what it will*, ever does, or can do any hurt to that sore; for the parts, which formed the matter are of the same nature, and cannot be irritated by that which they produced, except extraneous matter is joined with it.—If what I have now advanced is true, wiping, or washing away

cerate is allowed of with the view I have mentioned, the use of drying applications will, by no means, hasten the cure in this class of ulcers, which, perhaps, contains much the greatest number.

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away matter, under the idea of keeping the parts clean, is *in every case* absurd." See his *Treatise on the Venereal Disease*, page 36, *Note*.

It is somewhat unpleasant to have to combat sentiments with so respectable an opponent, whose experience as a surgeon, as well as his physiological attainments, might well claim a reverence from the most eminent practitioners. But the doctrine contained in the above extract seems to be far too *general*, and I think may lead to erroneous practice; for an enemy as I am to a scrupulous attention, and rude manner of always wiping off all the discharge that may be furnished by ulcers, I am equally persuaded, that much matter confined upon them will often occasion their spreading.—It is very pleasing, indeed, to be able to account for the changes taking place in diseases, and for the operation of certain remedies, as we are thereby often enabled to extend the application of the latter to different complaints, and render them more generally useful; but we may be too nice in our inquiries, and a turn for theory, and physiological disquisitions may possibly be carried too far; and certainly are so, when not only unsupported, but contradicted by facts; as appears to be the case in the present instance. For though it is very probable, that the system may not be affected by the absorption of new venereal matter, any more than inoculated patients are by a fresh application of the variolous; there are nevertheless other ulcers that will suffer by the acrid matters which they sometimes secrete. The discharge furnished by a cancerous sore, it is well known, will erode the skin, and extend the dimensions of the ulcer when not otherwise in a spreading or sphacelating state: and the like will happen to many other sores when there is no admixture of foreign matters. To prove this, let an ulcer on
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It may then be laid down as a general maxim, that they should rather be suffered, than invited to skin over; and to speak plainly, I would, especially in those of long standing, rather irritate than coax them, for I know they will heal in the end. And I wish to enforce this idea very strongly, as of the greatest importance,* and to recommend, in all suspicious cases, and especially where ulcers have been disposed to return, the long continued use of deterfive applications, not only till the sores have long put on a very florid and healthy appearance, but almost, or intirely to heal the ulcer under the use of such active applications; nor will even time always be lost in so doing. For if every part is become perfectly sound, the bandage will furnish that warmth which inclines them to heal; whilst on the other hand, if nature be not yet disposed entirely to suppress the discharge, the surgeon, as hath been shewn, by attempting to heal up the sore, will have

the leg be dressed with a little white cerate, or any other bland ointment, spread upon lint, and afterwards with the like spread on a thin piece of sponge, and the part be so rolled up as to confine the discharge: or should the cerate be thought capable of communicating this property, the different appearances of the sore will be still more evident when dressed one day only with dry lint, and another with sponge. In a certain state of the sore, when discharging plentifully, the ulcer will be either foul or raw, and its dimensions increased, under the former, but will appear fresh, healthy and granulating, by means of the acrid discharge being more absorbed by the latter.

* Vide page 28, of the *Introduction*.

great part of his work to do over again. For this reason, dry lint, blue vitriol,* nor hard comprefs,† should never be used, though I know they have succeeded for a present cure in several instances. The case, indeed, is different, when patients, at this period, are confined, dieted, and purged, (though upon that plan sores are not so soon brought into a good state;) such applications may then both agree, and expedite the healing of the sore: but such ulcers being rather desiccated by art, than cicatrized by nature, many such patients must soon make application again.

The habit is to be first gradually relieved, and to speak a popular language, the humors are to run off, and the change from a long accustomed, or copious drain, to be cautiously effected; but which gradually abating as the wound diminishes in its size, nature, however averse to sudden transitions, will when left to herself, in a reasonable time find some other vent.

* WISEMAN experienced this in a case that appeared to be going on well, but suddenly turned foul, and in a few days became as bad as ever. (*Book ii. ch. 9.*) This, however, seems to have been his usual method, and it must be acknowledged, that some ulcers on the legs healed in this manner may stand well, but there is no adequate rule to determine by; and therefore would a surgeon be certain of healing an ulcer, and perfecting a cure, that must not be his method.

† See Mr. ELSE's paper in the *Med. Observ. and Inquiries*, where he speaks of covering the ulcer with a sheet of lead; so also a late *French* author; though, indeed, the practice is very ancient.

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This remark; and what has been said above, it will be supposed, is peculiarly applicable to ulcers of long standing, but although in more recent cases, it may not be so necessary that nature should find some other outlet than the ulcer, nevertheless, all the above reasoning, as far as it relates to practice, will generally hold good: though it may, perhaps, be better accounted for upon very different principles.* Experience proves that few ulcers on the legs, though brought into a clean state, ought to be healed by any other means than preserving them so, nor will any other, under the directions here given, in ordinary cases, be found in the least necessary. Every surgeon knows very well, that the great difficulty respecting the cure of ulcers, and more especially those on the lower extremities, is to bring them into a good and healing state, and when that is accomplished an entire cure will follow of course. This is one reason that wounds on the head fill up so readily; they are not long in a foul state, and therefore after a few days use of some lenient digestive, want only to be kept clean, or at the most, to have their luxuriant granulations kept within bounds, which are merely a consequence of strong digestive powers, and of nature over-doing her part. But in the cases before us, there is little

* Having already offered an opinion on that subject, (vide the *Introduction*, p. 37, 38.) when speaking of the good or bad effects ulcers have on the constitution, which, it was said, were probably rather owing to irritation than the discharge; it was more natural to express myself here in the common language of writers upon this subject.

of this to be apprehended, for it has been said, the constant and firm pressure from the roller, (which may be increased as may be found necessary,) will always keep down this loose fungus. It will therefore be sufficient to apply a mild, defensive plaster, or sometimes one more drying, (as formerly recommended, if there are heats on the skin) which should be spread only on a piece of doubled linen, and be laid over the digestive; but if hard compress, or merely drying applications are laid on the sore, the ill-consequences I have mentioned will generally follow, or the sore, for want of proper digestion, will break out again.

Upon the above plan, however, every objection to healing the ulcer, as well as our fears for its return, are sufficiently obviated, and for want of which, the author of the paper in the *Medical Observations*, appears to have observed the above unpleasant effects; for if old ulcers are dried up instead of digested, and skinned over instead of being cleansed and incarnated;*

* HIPPOCRATES speaking of recent ulcers, hints at this expeditious method of healing under particular circumstances, but how inapplicable to the cases before us, reason and experience will determine—"aut si quis avertat (viz. suppurationem) ut omnino non suppurentur, præterquam necessario, eoque paucissimo pure, et sicca sunt quam maxime, ex medicamento non molesto,"—though in another place he adds, "ulcera non purgata, non committi solent, etiam si adducuntur, neque sua sponte coeunt. *De Ulceribus*, § v.—No better proof, however, need be sought for, that such is the general mode of treating ulcers of the legs, than the candid observation of the anonymous writer mentioned in the Introduction, page 30. *Note.*

if any thing is ever to be apprehended from the suppression of an accustomed discharge, or the least attention to be paid to the depending site of a wound, it is here we must expect all the evils that theory suggests, or experience is said to have proved. But, indeed, it generally happens, that ulcers thus healed, form a callous cicatrice, which soon falls off when the parts are not found underneath, and so prevents the mischiefs expected. Whereas, having thoroughly digested the ulcer, and brought it into a healing condition, leave it to nature at this particular period, and not only will the cure be effectual, but as hath been observed, will often be accomplished in as little time, as it is usually done by rest, diet, and purgatives, with the assistance of all the alteratives, as they are called, that I have ever seen used.

One caution more, however, may be necessary, in regard to a circumstance just now mentioned, the healing up with a callous cicatrice, or scab; oftentimes not easily avoidable indeed, and as seldom thought of upon the lenient plan, but almost uniformly an occasion of ulcers breaking out again. This is, however, by no means, so likely to happen upon the plan recommended, as under the lenient one, practitioners being often glad to get old ulcers healed by any means in their power, especially in hospitals, which are crowded with them.

It were needless, I apprehend, to inquire into the cause of the breaking out of ulcers that are covered in part with a scab, though it were easy to devise a specious theory; but the fact is a standing one, that
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if ulcers are suffered to heal up before the whole of the surface has been covered with firm granulations, or if after this, they have been dried up with a thick scab, or such be formed afterwards, they will be apt to break out into worse sores than before. Such scabs arise either from the surface of the ulcer becoming dry in different parts, in the form of islands, as they have been called, or from the thickening of the edges of the cicatrice. The former must never be allowed of in this class of ulcers; but such spurious covering must be destroyed, the bottom of the ulcer, in such parts, being unsound; no sore on any other part of the body ever healing in that manner, when defended from the air. In the latter instance of scab, when the sore is become small, the edges of the new cicatrice are found, from day to day, rising above the level of the sound skin, as the cicatrice advances on the surface; and certainly indicates a succeeding scab. This is therefore to be prevented, especially in ulcers of long standing, or such as have discharged very copiously, and in patients who have been accustomed to sore legs. In order to prevent such kind of healing, the new edges should be well rubbed daily with an armed probe, or be scraped down with the spatula as long as they shall appear thick; and should this not be sufficient, they should even be destroyed by lunar caustic, and the deterfive powers of the dressings be increased. This may be done by the unguentum citrinum, or the cerat. epulot. with precipitate, by which ulcers may be healed very kindly, and on the above account, I have observed this sort of dressings are

are in many cases, preferable to a weakened digestive, in the last stage of the cure.

Only large sores will afford any difficulty ; whatever pain, swelling, or humors, so called, attend smaller ulcers (of this class), they will occasion very little trouble, after a little experience of this method of treatment. The copious discharge, which a proper diet, exercise, and the digestives always produce, remove these, and many other symptoms, that are found so troublesome on every other plan ; and soon bringing the sore into a healing state, usually no farther difficulties occur, if the bottom be sound. If therefore, after this period, a large ulcer is found indisposed to heal up, (though there be no other reason for suspecting mischief at the bottom) and the usual stimulants are found ineffectual, the sore after the use of them, still continuing at a stand ; something farther is necessary : the powers of nature being, in some habits of body, often insufficient to cover a large surface with new skin, without other assistance, and a very different stimulus, which will presently be described.*

THIS brings me to the Second Class of ulcers, which in several respects, requires a treatment different from the preceding. It was a just observation of *Ambrose Parey*, “ *neceffe quoque est varia adesse medicamenta, viribus pariter et virium gradibus distincta ;*” for says he, “ *nihil mirum fit, si suo sæpe excidant sine, qui eodem medicamento, omnia maligna ulcera curant, et sanare se posse putant.*†

* See pages 140, 142. † *Cap. 9. Lib. xii.*

Under this head then, I shall treat that species of ulcer called erysipelalous,* or herpes exedens, occupying merely the surfaces of parts, which is always glassy, and in its first stage, easily offended by every unctuous application; also many small ulcers, attended with an erysipelalous affection of the skin, furnishing a copious, and almost caustic discharge; the true phagedenic, and various large ulcers in very old, or poor people, and in patients of a relaxed fibre and habit; including every *very* large ulcer of long standing, with the like pale, and loose surface, the consequence of bad health, neglect, or intemperance. Not that I mean to imply that no *very* large ulcer will yield to the former method, nor that he means there laid down, have no share in the cure of those now to be considered, unless the erysipelalous be said to afford an exception; for whatever may be the circumstances of the ulcer, it is to be digested and deterged, before we proceed to incarn.†

These things premised, the cure of every ulcer is to be undertaken with the same intentions; powerful suppuratives, digestives, and deterfive applications are to be used, and we are to proceed to escharotics as occasion may require. But when active remedies under every form are found to disagree, after a sore has been properly digested, and has put on a tole-

* *Introduc.* p. 4, 5.

† To incarn before we mundify, or deterge before we digest, is building without a foundation, or to lay such foundation on the house-top. DR. TURNER.

rable appearance, it is to be ranked in the second class, however small it may be; and especially that ulcer, the most obstinate of any, described under various names,* and usually known amongst us by that of the putrid or phagedenic—I shall begin with the erysipelatous.

I HAVE adopted this term, for the want of a better, to describe an angry, superficial ulcer, which is sometimes likewise accompanied with an affection of the skin that will spread over the greater part of the leg; and chiefly attacks the aged and infirm. It always furnishes abundance of thin, and very acrid discharge, especially if the surrounding skin is affected, rendering the limb intolerably painful; and when the dressings are removed, frequently emits a steam like boiling water. I have known poultices and fomentations used a long time to no purpose; the ulcer either not healing at all, or breaking out in fresh places almost immediately, and the pain still increasing. Purges likewise are here of no use; as to medicines, opium and bark seem of the greatest avail: the pain must be mitigated, and the habit be strengthened. The dressings should likewise be calculated to prevent fluxion to the part, or but little advantage will be gained; and in this species, I have never seen any harm from suppressing the discharge, though the remedies should increase the pain at their first application.

* Ἐλκος φαγεδαϊνικόν, or Νομή of the Greeks.—Ulcus depascens, rodens, or serpens; ulcus ambulatorium; ulcus putridum, et phagedænicum.—L'ulcere putride.

Having, in bad cases, made use of a mild suppurative poultice for a short time, to cleanse the skin, and empty the little inflamed and obstructed glands, by promoting their suppuration; I always apply some digestive to the deeper parts, for two or three days. After which, they may be dressed with an ointment made with as much true *armenian* bole as *Goulard's* cerate will take up, or a cerate to which some fine *crocus martis* is added, instead of the pulv. lap. calamin: whilst the whole limb, when the skin is affected, should be well dusted with the fine powder of bark, or covered with the unguent. desicc. rubrum, and after a while, with a compress wetted in the drying solution, made with sacch. saturni and vitr. album, formerly mentioned,* to avoid loading the skin with the ointment. With such applications, it will sometimes be useful to give the cicuta, and aq. calcis minus compos. or the *Lisbon* diet-drink, where the pain has been so far abated as to admit of laying aside the opium, and there is no peculiar indication for the bark. But if the above externals should fail, recourse must be had to the astringent solution, or ointment, I shall presently make known,† which will certainly be effectual; and may, I hope, in many cases, prove a valuable addition to surgical pharmacy. This is of itself, the remedy for those small ulcers attended with such an affection of the skin, as will cause a steam to rise from it like boiling water, which, after

* Page, 106.

† See Pages, 140, 142.

applying a poultice a few days, I am not afraid of suppressing by these means ; and indeed have found medicines incapable of doing it.

Where almost the whole leg has been affected, a scurf, or scab, will remain for a considerable time, which must not be hastily rubbed off. But the parts may, now and then, be touched with a little unguent. *cærul. mit.* and at other times be washed with the drying solution till the scales fall off of themselves, or are very easily separated ; at which time the skin will be found, and perfectly smooth underneath. In all such cases, a piece of oil'd-silk should, now and then, be applied under the roller, about the time the scabs begin to loosen, though some of the sores should not yet be healed up ; which will hasten the separation of the scales, and take off the stiffness of the limb. This should likewise be worn for a short time after the cure is compleated, which it will contribute greatly to the continuance of, but must occasionally be laid aside, if it induces too great moisture on the skin ; and the flannel roller be continued.

There is a similar, but less violent affection of the skin, attending not only this, but some ulcers of the former class, which may be treated in a manner that may appear strange on the first mention of it, but is perfectly safe. This is lightly dusting the fretted parts with precipitate very finely levigated, which so far from increasing the discharge, or aggravating this spurious inflammation, usually checks them very soon ; which it is evident such a remedy cannot do improperly. I was myself surprized at the first good effects

fects I experienced from it, after the afore-mentioned drying applications had proved less friendly to the parts than usual. This appearance of the skin in common sores, happens generally in the case of small angry ulcers, where upon the healing up of one or more, others constantly break out; which nothing I have ever tried, so often prevents as the treatment here recommended. But should any of the excoriated parts get deeper under this treatment, and a little ulcer be made, it will always prove less ill-conditioned than those which had been spontaneously formed, and will be sooner healed than these angry excoriations would be, by any sedative, or drying applications. The disease seems to be in the sebaceous glands, the nature of which, should seem from the remedy, is an atonic, rather than phlegmonous disposition of the parts.

From these I pass on to the phagedenic ulcer; in treating on which, perhaps every thing will be said, that can be necessary for any other large and troublesome sore, classed under this general division.

This ulcer is always attended with an obstinate callus on the edges, and on some parts of its surface; is often streaked with red lines, and is foul, glassy, and smooth, or resembles a newly made wound, where a portion of flesh has been rudely torn away by the bite of an animal. It is very easily offended, and often spreads and eats like a canker, on the application of common escharotics,* (which, indeed, it

* See FREKE's *Art of Healing*. See also PAREY from GALEN,

“ nam

it will sometimes do under any treatment) the acrid matter either dissecting its way between the muscles, by destroying the cellular membrane, or else eating through the skin. Its edges always put on an irregular, and unkindly appearance, are often swelled, and streaked with blood-vessels like the bottom of the fore, and are disposed, from their laxity, to bleed upon the slightest touch. This ulcer generally takes place in the very poorest people, whose blood is broken down by hard labor, or intemperance; is very difficult to cure, and when very large often baffles every attempt of the best hospital surgeons.

There are, however, more ways than one of subduing many of these obstinate sores, and to this, the free exhibition of the bark will greatly contribute. The efficacy of this medicine may frequently be greatly increased by being joined with aromatics, or in women whose menses are obstructed, with chalybeates; which especially in that form prescribed by the late *Dr. Griffiths*, is, perhaps, the best remedy in chlorotic, and other cachochymic habits, ever administered.

Where the patient's situation will conveniently admit of rest, (though indeed the remedies may be administered without it,*) a fomentation used for a

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few

“ nam diuturnior, et copiosior flicantium, et detergentium usus,

“ ulcera excavant indies; quare (says he) prudens videbit medicus,

“ quando à valentioribus detergentibus, et corrodentibus ad mi-

“ riora sit digrediendum.” *Cap. 9. Lib. xii.*

* The different intention with which a common bread and milk
poultice,

few days, and the suppurative cataplasm,* supported lightly by a flannel roller, about a week longer, never fail to lessen the most troublesome symptoms, and so far to subdue them, as to render this ulcer more tractable under ordinary means. That kind of dressing, besides every other advantage, has that of absorbing, and therefore, sheathing the corrosive, and caustic discharge, increased by most other dressings, to the great aggravation of the sore.

When the callous edges become soft, their inequalities are removed, and a fine skin begins to cover them, the poultice may be discontinued, and the ulcer be dressed with some mild suppurative ointment, with the occasional addition of a little saturnine cerate, which is peculiarly friendly to this irritable sore, or sometimes, the cerate made with crocus martis; but more frequently, the best application, in this state, is *Goulard's* cerate and bole just now mentioned.† By

poultice, and that now recommended, is made use of, is such, that although the former is seldom of much service, unless it be preserved warm, by the patient being confined to his bed, the latter, from its potential warmth, will answer tolerably well when lightly supported by a flannel roller, though the patient be suffered to walk; which he may do, not only about the house, but to the surgeon's to be dressed, or examined, as I have repeatedly proved.

* See page 108.

† Besides experience, such ointments have the sanction of all the old writers from the time of *GALEN*, who constantly advise some preparation of lead with the absorbent earths, or other powder, for this malignant and eating ulcer.

these

these means the ulcer will become manageable, and will soon bear more effectual remedies. This period may be known, both by the appearance of the sore, and by, now and then, mixing a little red precipitate with the digestive, or by dressing with the unguentum citrinum. If the ulcer will bear these, a very few days will produce a wonderful change, healthy granulations will shoot, the remaining callosities will disappear, (which may be hastened by repeated scarifications) the hollow parts will fill up, and, probably, no farther difficulties will arise. And here, I must return to the caution, *festina lente*, which can scarcely be too often repeated with regard to ulcers on the lower extremities. But whenever gentle escharotics, and powerful digestives are found to disagree, recourse must be had to lenients, either such as are above-mentioned, or at times more suppurative ones, according to the particular appearance of the sore; now and then interposing a dressing with a little precipitate, or sprinkling the sore with lapis calamin. and myrrhe, whenever the cure seems to be at a stand.

By these means I have succeeded in very troublesome ulcers of this species, though perfectly intractable at first with every common digestive, and abhorrent from ordinary deterfives; and I believe they will generally succeed very well if the ulcer is small: but if it be very large, it will not always be healed by them, without rest, the bad consequences of which have been often adverted to. Mr. Freke, indeed, in regard to these cases, has spoken very positively of

the effects of his suppurative poultice, but it will certainly prove insufficient when there are large fungi, or of very long standing. The disease often runs too deep, with too hard a callus, to allow the parts to get unloaded, and however suppurative the poultice, it is not active enough to answer the end. The hardened parts, however, must be removed; and it may be proper in this place, to hint at a method of treating them that is often preferable, because much less severe, than the cautery, or total excision with the knife. It is true, a fungus but rarely occurs, so as to prove troublesome, under the plan I have mentioned, and which both the bandage and exercise have an uniform tendency to prevent; yet it sometimes happens that a large and hard fungus is formed ready to our hand, and is generally the consequence of a bad bottom to the sore. If this arises from a narrow neck, it may often be removed by pressing some fine lint pretty firmly round its base; or if this fail, a tight ligature may be easily passed round it. But if the basis be large, and it should not seem disposed to yield to digestives and bandage (which the softer fungus generally will, as the bottom of the sore is less frequently unsound,) it will be sufficient, in most cases, to make one deep incision to its bottom, after which its sides will frequently waste away by digestives and bandage: but should this prove insufficient, escharotics should be sprinkled between the lips, and be occasionally repeated, till the fungus shall subside. This effected, proper digestives should be continued, by which the discharge will be kept up,

up, and every thing Mr. *Freke* expected from his suppurative poultice will be happily accomplished, without the baneful effects of rest of the limb; and without it, he never looked for a cure.

The large phagedenic ulcer is the only one that will create any great difficulty to the experienced surgeon; small ones, of whatever duration, and whatever may be the age and constitution of the patient, as far as I have seen, are healed by the above means, with ease, expedition and safety, after having withstood a variety of others under a tedious confinement. And many common large ulcers, though deep, with disease of the skin to a considerable extent, it has been said, are cured in a very reasonable time, and require nothing but patience; I mean require the caution so frequently given, not to be anxious to heal them entirely, till the surface becomes perfectly good, and they are disposed to it with any common dressing. But the very large phagedenic ulcer, which is easily put out of humour, and disposed to spread on every little occasion, is that which will prove the skill, and sometimes try the patience of the surgeon.

However, from what I have known, I can venture to recommend a method to others; though it is confessed, want of opportunities has limited my experience in the worst sores of this kind,* which falling

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* In one of the *Medical Journals*, anno 1785, we have a particular account, by *Leonard Gillespie*, of the wonderful efficacy of lemon-

to the share only of the poorest people, are seldom seen but in large hospitals, which I have therefore occasionally visited, purposely to make observations upon ulcers on the legs, by comparing some of the worst cases with those I have been concerned for. The poverty, and evil custom of these patients, indeed, greatly aggravate the complaint, and though the plan recommended be ever so well adapted to the disease, want of compliance on their part may render it abortive; and it is possible, there may be some cases will yield to no treatment whatever.

If very active applications are used, in the form of an ointment, these are often most advantageously applied to the large, and irritable sore, upon a thin piece of sponge; by which means very deterfive ointments will agree very well for the short time they are necessary, when they would otherwise eat the

lemon-juice, as a dressing for the scorbutic, or putrid ulcer amongst seamen; and the public has been favoured with a like account by *Dr. Blane*, in his treatise on their diseases. How far this application may be serviceable in what is termed, at land, the putrid, or phagedenic ulcer, I have had no sufficient opportunity of experiencing since I have been acquainted with those publications. However, from the good which I conceive has been effected from a mixture of lemon-juice and treacle, it appears probable, that lemon-juice alone might be very useful in such spreading ulcers, particularly from its tonic qualities; a circumstance of great importance, as will presently be noticed. At any rate, however, desirous as I am of throwing every possible light on the treatment of ulcers on the lower extremities, I thought it proper to communicate this practice to such readers as may not have seen the useful publications that first recommended it.

ulcer into holes, and give it a raw, dry, and indigested appearance. I received this hint, from what *Freke* says on his poultice, that it absorbs the acrid discharge, whilst it conveys to the surface of the ulcer a suitable application. This led me to reconsider the very frequent use the ancients made of sponge, which is one of the many valuable remedies of antiquity, that the moderns have indiscriminately discarded; though it is in many cases, one of the fittest means of conveying apposite dressings to a sore, that was ever devised. It is liable to no possible objection that I know of, in point of utility, if not made use of too long, and which every surgeon will know how to avoid.

There is, however, a very bad phagedenic ulcer, and always a large one, that dislikes almost every thing in an unctuous form, at least will not be healed by such applications, till brought into a different state; that is, till its surface is braced.—There is here, I apprehend, no virulent humor, as is usually suspected, no virus that wants to be discharged at the sore, nor an *irritans aliquid* which nature cannot otherwise get rid of. Facts demonstrate the contrary, for not only do patients enjoy very good health, after getting rid of the ulcer and their limb together, by undergoing a painful operation; but the cure of some of the worst of them, proves such ideas to be rather apologies for the want of success, than founded in the reason of things. Sores have been, and are healed by empirics, under all circumstances, and no such dreadful evils have ensued; but we have not

known their art, and have contented ourselves with supposing it to be unsafe, and disputing the propriety of a cure we have not been able to effect!—*Hic labor, hoc opus est!*

This I would stir up my brethren to attempt, and am persuaded they may succeed oftener than it is imagined; and perhaps the most rational means is to remove the local affection, a relaxed, and therefore irritable state of the parts. That this has been frequently the great obstacle to their cure, it were easy to prove by a variety of observations taken from healing sores, and from such as having promised well for a while, and then looking pale for a few days, have run into a gangrene; or at least have continued at a stand—but I am satisfied, every experienced surgeon is before hand with me, and is inclined, at least, to suppose it probable, that the hint may be just.

It is not designed, however, to dry up ulcers on the legs, as one would a scratch on the finger; the vessels of the part are first to be freed, and the ulcer properly digested, and deterged; escharotics are to be applied if found necessary, and the sore to be treated as directed in the former part of this work, so long as nature is disposed to be active; but the moment she flags, or cannot be roused to a salutary exertion, by stimulating applications and exercise, (or whenever such applications offend,) the inference is as obvious, as an attention to it never fails to be useful. The sore is to be *braced*, and the parts disposed to contract; the certain consequence of which will be a fresh, and healthy appearance of the ulcer;
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a pretty sure sign we have not mistaken the case, and that the means we are using cannot be wrong.

But if this be attempted too soon, the plan is perfectly irrational, and the cure will not be accomplished, or cannot be expected to continue. For this reason I have objected to the early use of those drying applications, which some empirics have entirely depended on; as well as against dressing ulcers with aq. vegetab. miner. dry lint, and covering the surface with lead; which I may venture to say, would, at least, be used with more safety and success at a later period, when sores are well cleansed, and nature flags under fruitless efforts to cover a large surface she cannot first sufficiently *contract*. And here, I cannot but remark, that there are but very few parts of the body, on which we meet with sores so large as those on the legs, where the whole surface is to be covered with entire new skin. Surgeons are always careful to preserve a great deal of skin when they take off any of the larger limbs, or a tumor of any considerable size; by this means, although the ulcer, a few days after the operation, may have been very extensive, the cicatrice at last is often not larger than half a crown-piece, or even a shilling: and it is on this account, that large surfaces are sometimes so readily healed. But there is frequently great difficulty in thoroughly closing a sore occasioned by a burn, on any part of the body, when the true skin and adipose membrane have been destroyed to a considerable extent. * Such cases,

* In such instances, though a patient be ever so healthy, we are

cases, in this respect, approach the nearest to the ulcers in question, of which the old skin can be brought over only a small part of the surface, and the rest is covered entirely by new. In all such cases, the astringent lotion already hinted at will wonderfully assist the cure, by enabling nature to contract the surface, and lessen the dimensions of the sore.

But however, and whenever bracing applications are used to the legs, they should not be continued throughout the cure, nor longer than is absolutely necessary; but being gradually weakened, the last stage should be effected, if possible, by ordinary means, and with the cautions laid down in the foregoing pages.

The solution may frequently be made use of merely to wash the surface of the sore, or sometimes may be applied on a piece of double linen, (for lint sticks too close to the surface) its edges, (in very bad cases) being first spread with any mild cerate, to prevent them from adhering too tightly to the skin, and thereby confining the discharge; and should therefore be somewhat larger than the ulcer. There are, however, some very large sores that require a more effectual method, and the solution is more advantageously applied, for a short time, on a thin piece

are apt to say, that the constitution long accustomed to the discharge, is thereby indisposed to suffer the ulcer to close. But it is very probable, it may often be better accounted for, on the principle just now mentioned.

of sponge; but as the sore contracts, and becomes dryer, the granulations are apt to shoot into it, and the surface will bleed on taking it off. A slice of new bread may then be substituted, a little time longer, in its stead, which will equally absorb the acrid discharge; but this will be necessary only when the sore is yet very large, and has been much disposed to spread, or very unwilling to heal. And should we, now and then, meet with a case, wherein the application of the solution upon bread, may seem necessary for many days together, as this may be thought an uncommon, and awkward manner of applying a dressing, the vitriol, which forms the basis of the solution, may be mixed up with a proper quantity of oil, and made into a mild cerate, or ointment; with ingredients more or less suppurative, or otherwise, according to the particular circumstances of the case. But above all these, bathing the limb for a quarter of an hour before each dressing, in a tepid solution of the calcined vitriol * should be made trial of; an expedient I was not acquainted with when the former edition appeared. But if none of these difficulties appear upon leaving off the dressing with sponge, a piece of linen wetted in the solution, may be laid on the sore; or even washing it with the solution may now be sufficient, and a mild digestive, or in very obstinate cases, the cerate with crocus martis, or *Goulard's pomatum* and bole, be applied

* See page 142.

to its surface. To this, a little precipitate, or corrosive sublimate, may sometimes be added to advantage, if an ulcer has hitherto been in a very irritable state, and it is apprehended may not have been perfectly digested.

Some of these phagedenic ulcers with a very large surface, and of very long standing, are of a nasty greenish hue, exceedingly foul and indigested, and so painful that they cannot endure the tedious process of ordinary deterfives, but as hath been observed, are exceedingly aggravated by them: they will sometimes, indeed, be benefited by the application of the theriaca venet. but are very apt to prove foul again. They may be cleansed, however, in one or two dressings, by some such lotion as the aqua phagedænica, for the lotion that passes under that name, is too strong to be safely applied with freedom to very large surfaces.* Or, if ointments containing mercury are thought proper, the unguent. citrinum is one of the most powerful, or an ounce of ung. basil. flav. with a scruple of the mercur. corros. sublim. will form an excellent deterfive. But it sometimes proves a very painful application, and ought never to extend beyond the sore, as it may blister the part all around, and bring on an erysipelatous inflammation.

The lotion I just now hinted at, is, indeed, generally preferable; this I have called a deterfive

* It is likewise a very inartificial preparation, formed upon erroneous principles, by which the intention is very much frustrated.

lotion, to distinguish it from that I formerly mentioned, and consists of a mild solution of sal. martis, with a very small portion of merc. corros. sublimatus; a thick piece of crumb of new bread well soaked in this solution, and bound on the sore at going to bed, will often cleanse it in one night, and produce a discharge of as laudable pus as the surgeon can wish for; nor will frequent repetitions be necessary. It will then be sufficient in general, to wash the ulcer with it before the ordinary dressings are applied. But should the ulcer spread again after a while, though it has been perfectly digested, and looked as well for a time, as a common sore on the arm, recourse must be had to the first mentioned lotion. The loose flabby surface must be braced, and contracted, (and this is fitly done by astringents, which invigorate and warm without relaxing) which every surgeon knows always produces a fresh and pleasant appearance, lightly granulated, but without a disposition to bleed upon every touch of an armed probe; which by the bye, is sometimes used more freely in wiping the surface of sores than is safe, and generally much more than is necessary.

This lotion is very simple, yet is exceedingly detergent, and by means of its bracing powers, gently corrugates the surface, and by kindly urging nature to action, gives the sore a florid and strawberry appearance, but without leaving that dryness upon it, which common astringents, and particularly allum, always induce. And it may be necessary here to observe, that though applications merely astringent or

drying,

drying, are in general very improper, for reasons that have been repeatedly hinted at, experience proves there are some things of the astringent kind, which are likewise deterfive, that may frequently be used with advantage and safety. It was not, however, without long attention to the subject, and numberless attempts, that a safe and suitable preparation has been discovered; such an one, as will not only brace, but cleanse the sore, and preserve a pleasant appearance of its surface, whilst it disposes it to heal; such an one, as according to the strength it is made of, will abate, or preserve the discharge, will stimulate the rising granulations, and urge nature to exert herself, or will more powerfully corrugate its extreme vessels, and disposing them to contract, prepare them to cicatrize at the edges of the sore.

Such, it is thought, is the solution frequently hinted at, and that it will often answer all the purposes required in many obstinate ulcers. It may safely be used to every very large one, and in perfect consistence with the plan of not compelling them to dry up, if it be not used too early, or continued too long; and which the prudence, and experience of the surgeon will determine. This is made of the *vit. virid. ad albitudinem calcinatum*, dissolved in *aq. font.* and prepared of such a strength, according to the nature and extent of the sore, as the practitioner shall think fit. But it should be only in the hands of surgeons, who will vary its astringent quality and strength, to the circumstances of the case, and will not attempt to dry up old ulcers in the mode of empirics: for if made of an improper strength, it becomes a very different

application, and will alone induce a skin on the surface of many ulcers that are yet in a very undigested state, and unfit to be healed—but fitness and safety are not always the objects of that class of practitioners, and to whom therefore a little knowledge is a very dangerous thing.

Thus far some experience may be said to have gone, but how much farther this plan may with safety and advantage be extended, it is time only can prove. It has been observed, however, that my experience of its advantages over every other method hitherto made public, has been greatly confirmed since the former edition of this work; and I have therefore farther ground for hoping that the treatment laid down in these pages, may be applied to ulcers attended with caries of the bone. At least, when the ulcer is only of a moderate size, and the injury has not penetrated so deeply, or the pain and inflammation are so great, as to render a very long confinement absolutely necessary, the methods proposed seem to promise success; though my own experience may not warrant me to promise it where the caries is considerable. And allowing only a certain time of confinement at a necessary period, when the bone is exfoliating, (which may be hastened by slight perforations into the sound part) exercise will have a very considerable advantage through the rest of the cure; for as a degree of inflammation is the process, by which nature throws off sphacelated portions of bone, it being perfectly similar to that which takes place in the softer parts of the body, I may venture to think this process

cess may go on better, and if it succeed, far more safely, with moderate exercise than by absolute rest, as the cure is likely to be more lasting. We know how much can be done, even in the foul air of an hospital, under the hands of experienced practitioners, in some very bad cases; though this is certainly sometimes prevented by the closeness of the place, or the patient accidentally taking a fever.* If these risks could be avoided by the patient being, with safety, permitted to take as much exercise a part of the day, as might maintain him during his cure, perhaps now and then a limb, or a life might be saved; or, at least, the attempt, it is hoped, might be justified.

But after all that can be said, the necessity of amputation, in some cases, cannot be disputed; but I am daily more persuaded, there is good reason to hope such will not often occur, after this method shall have been for some time adopted. For patients will then have been informed, that sore legs are cured without confinement from their families or labor, and that so cured, they will not be afterwards liable to return, but from the same causes that produced them at first. These considerations will, probably, encourage most patients to seek advice very

* Beside these disadvantages, there is another very common in hospitals; which is the custom of taking off the dressings from sore legs, sometimes an hour or more before they are dressed up again. The bad effects of this practice must be evident to every man, but will be more so, by comparison, upon leaving it off.

soon, and though some of the poorer amongst them should procrastinate longer, many of these may nevertheless get effectual help when they apply; which will be likely, at least, to prevent the dismal effects of a mere temporary cure.

BESIDE the few cases which, but for amputation, are beyond the reach of art, others have been mentioned, which manifesting the existence of internal disease, with morbid affection of some of the viscera, where it has always been presumed an external drain must prove serviceable, it may become a matter of doubt, whether their cure may be safely attempted,* or the substitution of issues be a sufficient supply in

* Ulcers attending the leg in old people, ought to be looked upon as critical, and therefore should not be healed. LE DRAN. So HEISTER, and many other eminent writers.—The opinion of AVICENNA is so very emphatical, I hope I shall be excused if I give the quotation. “Sed in senioribus non sanantur eorum ulcera—et quandoque sanantur, deinde rescinduntur, quoniam non generatur in eis caro, nisi ante mundificationem; quando ergo retinetur in eis superfluitas non munda, oportet inde ut corrumpatur continuas proveniens secunda.” *De Ulcerib. Lib. iv.*—I have ventured, however, to cure ulcers of many years standing in very old people, and one many years ago in a lady upwards of eighty years of age, whom a very eminent surgeon had cautioned against suffering it to be healed; all of whom have since enjoyed good health, and the ulcers have shewn no disposition to break out again. This practice has also the support of *Mr. Bell*, who though so great an advocate for issues, considers sore legs, except in cases of specific infection, merely as local affections.

their stead. Here the physician ought to be consulted, and, indeed, it were to be wished this were much oftener done in surgical cases, than it is; he would furnish the surgeon with some useful hints on various occasions, and whilst they would proceed *pari passu* together, the patient would not have to repent it in the end.—But in the present instance, should they be of opinion that the discharge from a large issue would be inadequate * to the drain from the ulcer, they may perhaps be in the right, and the patient will probably chuse to err on the safe side. There are certainly facts which favor either side of the argument, and therefore some latitude must be allowed, and the discretion of practitioners must determine in particular cases. *Wiseman*, for instance, gives us a remarkable one (*Book ii. ch. 9.*) of a young woman afflicted with a bad ulcer on her leg, which for a long time resisted all the means used by himself and others, on account of suppressed catamenia, which periodically occasioned a foulness of the ulcer; till at length the sore being healed by the assistance of

* See BELL, *On Ulcers, Part ii. § 2.* on the nature and quantity of pus discharged from a common issue—add to this, the very moderate discharge many ulcers furnish when left to themselves, or dressed as they usually are by paupers, with a little very bad cerat. epulot. But reasoning from facts, it appears full as probable, that the advantages of natural, or artificial drains, arise more from irritation, than the discharge from the sore. See *Introduction, pages 31, 32.*

a laced-socking,* the woman enjoyed perfect health, and the menses soon afterwards returned in their natural course. Suffice it to say, that great numbers have been cured where the bad consequences apprehended have not ensued, and as far as I could learn, very few have ever broken out again.

Some Caution however is necessary, but it consists in very few things, viz. *Purging*, *Temperance*, and continuing the *Bandage* for some time.

THOUGH purging has been so strictly forbidden, with a view to invite the ulcer to heal, during which process, to prevent constipation is all that, in general, should be aimed at; yet when the cure is nearly accomplished, such a course is suggested with the greatest propriety. A few brisk purges, at convenient intervals, should at this time be directed, according to the age and strength of the patient. The

* That this, and many of WISEMAN's best cures were effected by a tight bandage, and often by a free use of precipitate, is exceedingly apparent.—Speaking of ulcers with great loss of substance, which he dressed with basilicon mixed with precipitate, (which he there observes he usually carried in his salvatory) he expresses himself thus.—“ I then rolled it up with expulsive bandage, the cure indeed consisting mainly in the well-rolling—by the use of it, both the influx was taken off, and the member strengthened.” And again *ch. viii.* on the ulcer with callous lips, he says, “ the speedy cure of this I imputed to the laced-socking, it performing all the intentions necessary to the curing of many such like ulcers.”

roller, it was said, should be continued for some time; the size and duration of the ulcer, with similar circumstances, which every surgeon will have respect to, will determine the length of this period; for if the ulcer has been very large, and of long standing, it will be necessary to continue the roller a considerable time. It need, however, be worn only for a few weeks during the night.

This is all that is required; advising, however, that caution proper for every convalescent, to attend to his general health, and to take a purge now and then, if a constipated state of the bowels should require it. To these, indeed, was added a caution to the intemperate, since, doubtless, a certain manner of living, may render this, and the cure of any other complaint, of very uncertain duration. If men will run *quo ducit gula*, they must themselves, and not the physician or surgeon, who has once or more cured them, abide by the consequences.

BY way of Conclusion, it may not be amiss to bring the principal intentions into one view, as well as make some apology for so bold an attempt to set aside the common remedies and applications for ulcers on the legs, and even to recommend a method, in many respects diametrically opposite to those in vogue; as Exercise instead of Rest and Confinement; free generous Diet * instead of a strict sparing

* See Dr. KIRKLAND on the *diet* of patients, in his *Thoughts upon Amputation*.

Regimen; and strong Digestive Ointments rather than mild Poultices and cooling Cerates.

If the success of a plan varying in such essential respects from any hitherto received, should justify the hope entertained, the advantages will not be inconsiderable to men of pleasure or of business, but especially to the suffering poor, who crowd the public hospitals much more on account of these disorders than any others. If they can be cured without being obliged to leave their families, and that labor by which their families are supported, it is thought one grand obstacle to their applying for relief in proper time will be removed: and the surgeon will doubtless be glad, on many accounts, to be saved the very disagreeable necessity of receiving such objects into the hospital, most of whom may with more safety and propriety, be cured out of the house. But important and desirable as is such a design, the author is aware of the obstacles there may be to the extensive usefulness he has had in view, in rendering such a plan general amongst the very poorest and heedless part of mankind, who are seldom faithful to themselves. Satisfied, however, of many advantages it will have amongst those of superior rank, and wherever patients can be depended on, he is confident some good will be effected upon this plan, that has never been accomplished by any other. He only requests his brethren will condescend to make use of the preceding hints, and allow a little time to prove the utility of the mode, and he doubts not they will find success enough

to encourage them to persevere, until farther improvements will be made by them.

He has, however, discharged his part ; he has delivered his sentiments as the result of long attention to the subject, and must leave his readers to pass what sentence they please. In the mean time, it is his satisfaction to have aimed at things, which it can be no crime to have attempted though his design should not perfectly succeed ; whilst to have concealed what was judged likely to be of such public utility, would have been criminal in the eye of every benevolent mind.

It may be proper to add, that it has not been his design to intimate that other surgeons are without their success in these cases, some of whom he knows have paid particular attention to them ; and should any know already as much as he has to say, and be able to heal old ulcers without confinement, or probability of their return, it is pity the public has not been made acquainted with it. It would have saved the compiler of these sheets some trouble ; who had no such desire of appearing in public, as needlessly to have exposed himself to the hazard of censure, for opinions he has supposed novel among regular practitioners. To such he now submits the foregoing pages, persuaded they contain some improvements. But should they, after a longer trial, be found inadequate to the end, and any other method be pointed out more rational, easy, and certain, it will be the duty

duty of every candid practitioner to adopt it. Till then, the author can only say,

*Vive : vale. Si quid novisti rectius istis,
Candidus imperti : si non, his utere mecum.*

HOR. Epist. VI. L. i.



B R I E F
P R A C T I C A L O B S E R V A T I O N S
O N S O M E
S C R O P H U L O U S U L C E R S ;
O P H T H A L M Y ;
T H E
M A M M A R Y A B S C E S S ,
A N D
G A N G R E N E .

Inest sua gratia parvis.

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PRACTICAL OBSERVATIONS

UPON SOME

SCROPHULOUS ULCERS.

WHEN I began to reflect on the great advantages that had resulted, in many bad ulcers of the legs, from a bold use of the mercur. corrosiv. ruber, and of some digestive ointments of a warmer composition than those in common use, as well as from a generous diet and exercise, it was natural enough to extend the trial of them in other troublesome sores. The result of these experiments has, indeed, exceeded my expectations, and I can now venture to recommend them to the trial of other practitioners, and particularly, for cold glandular tumors about the neck, supposed generally to be of the scrophulous kind; which, however, frequently appear, and break into very troublesome sores, without any other marks of that dreadful complaint.

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I was farther encouraged in these attempts, by some observations of the late *Mr. Freke*; who indeed was a man of a lively and warm imagination, and sometimes a little eccentric, but was, nevertheless, a thinking man, and had plausible reasons to assign for every part of his practice. His ideas of these cases (as well as of diseased bones) served to confirm me in the opinion I had entertained both of the disease and the remedy.

I have now, for some time, used the precipitate with great freedom in scrophulous affections of the neck, and to very great advantage.—If the swellings are at all disposed to come forward, but are not broken, or have only a small orifice, I always hasten the maturation, and the dissolution of the skin as far as it is diseased, by means of epithems made of honey, flour, and yolk of egg, to which also may be added a little yeast. I am very little concerned to what extent the sore may run, as I know I shall have much distempered gland to destroy underneath, and that if the latter be not effectually done, the sore will either not heal entirely, however small it may become, or will soon break out again. The scars, however, are even smaller, than when the ulcers are treated in the ordinary way. For the skin, in this part, being thin, frequently loose, and yielding, the tumor beneath it removed, and the sores healing up much sooner than under the lenient method, I have known them, when cured by the above means, leave no more than a seam, and a little redness to
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be observed afterwards, without any proper scar on the part.

The only disagreeable circumstance that can attend such a practice, I apprehend, is the possibility of a salivation, of which I can say only, that it has never happened to me; though before I relied so much on external means as I now do, I have given mercurial medicines in small doses, for a considerable time, whilst I have made use of precipitate daily with great freedom. Moreover, as it is very common to prescribe sea-water, or some other laxative, in these cases, the risk of a salivation, I imagine, will in general be very little. But should even symptoms of it appear, every practitioner, as he will know the cause of it, will immediately take care not to increase it.

I am now, however, persuaded, there will generally be little or no occasion, for administering mercurials inwardly, or any other medicine under the idea of an alterative, (at least, I am afraid, we know of none peculiarly adapted to the disease) much less for frequent purges, which serve only to reduce the *vis vitæ*, which, in these cases, is always too languid already. I find likewise, the sores heal up as kindly without, as where mercurials, antimonials, cicuta, neutral salts, or sea-water are made use of, all of which I have formerly prescribed with great freedom; and I doubt not that the plan I mean to recommend, especially when this disease is confined to the neck, will be very frequently successful in
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the hands of every other gentleman, who will give a fair trial to it.

If the patient is unhealthy in other respects, such medicines should be directed as appear suitable to his complaints, when the bark will, I believe, be frequently found as useful as any; and I have found evident good effects from a strong decoction of the woods, and crude antimony. But in a general way, I depend upon nothing so much as procuring a good and early maturation of the tumors, and suppuration of the distempered skin and glands, by means of the aforementioned epithem; a very bold and continued use of the precipitate; a nourishing diet, and as much exercise as the patient can well bear; esteeming walking the best of all. To this end, the patient should be encouraged to be continually on his feet, and abroad in the air as often as the weather will safely admit of it; and of whatever age he be, after beginning this exercise in a way that shall be quite agreeable, to increase it daily, till he shall go to bed every night thoroughly fatigued. Of the advantage of this,* I have had such proofs, as leave me no room to doubt of the propriety of venturing to recommend it, as far

* Nihil est, quòd utilissimam superflui et nocentis humidi perspirationem tam egregiè juvet, quam motus corporisque exercitatio, qua tuendæ sanitatis vix præsentius datur auxilium.—Peregrinatio ad omnium salubritatem pertinet. quia non modo cum continuo motu, sed frequentiori etiam aeris insalubris in salubriorem mutatione conjuncta est, quæ tuendæ sanitati et corpori a pluribus morbis præservando egregiè velificatur.

HOFFMAN. *De Motu optime Sanitatis Præsidio. Cap. ix. et seq.*

as such experience may be supposed capable of doing it. And of this I recollect two remarkable instances; the one in a lad who came to *London* exceedingly scrophulous, and was hired to go behind the carriage of a gentleman, who was in it many hours every day. The other was the son of an exciseman, who having very long walks, took the child, who was about six years old, constantly with him. Neither of these patients took any other medicine than a dram or two of *Epsom* salts, four or five times a week; yet both got perfectly well.

To obtain the advantages that have been hinted from the use of the precipitate, scrophulous ulcers should be filled with it, and if a flough is formed by it, (which will not always be the case) the suppurative epithem is the best dressing till the flough is thrown off; when the precipitate should be immediately repeated. The first, and a very early advantage, from such a use of it, will be a change in the discharge, both in quantity and quality, which from having been too little, or from an abundance of corroding sanies, will be changed to a moderate discharge of good and laudable pus; and the sore, except when a flough is produced by the application, will always look clean. In a little time there will also be a favourable change in the parts contiguous to the ulcer, the swelling will subside, and from a red and heated appearance, the surrounding skin will acquire its natural color, and the patient himself, or his friends, will be able to judge of the favorable turn in his case.

I have advised a daily use of the precipitate, which,
indeed,

indeed, I intend almost literally ; for when a good deal of the gland has been destroyed, the fore and surrounding skin will be found to contract under the use of it, as if an astringent application were made use of ; and the parts will actually heal up to the breadth of a straw, whilst this active mineral, which has already destroyed a cluster of distempered glands, is daily applied.

I have elsewhere taken notice,* that electricity has been found very serviceable in these sores, and that it becomes so by communicating powers to the parts. But it will be farther necessary to remark, that it not only forwards maturation in such tumors as are previously disposed to suppurate, but does it in the most advantageous manner, as well as expedites their healing, and often without so much as a scar. For tumors brought by this means to suppuration, frequently break only into very small apertures, from which, however, the matter runs very freely by the daily use of electricity ; and when they are disposed to heal, the skin on the surface becomes attached again to the parts below, and only perhaps half a dozen very small specks, in the form of so many pin-holes, remain.

Since the former edition, I have had some farther experience of the virtues of camphor in cold tumors, and I can now recommend it, in consequence of such trials, as frequently capable of dispersing such as have

* Vide the Introduction to *Treatise upon Ulcers*, pages 13, 14. (Note.)
long

long been in a quiescent state, and not disposed to suppuration. Such tumors have sometimes proved exceedingly troublesome, on this account, remaining indolent after others have suppurated plentifully. In this state, oil well saturated with camphor,* has become a very useful and safe application, and by resolving the smaller indolent tumors, serves to complete a cure, that would otherwise have remained imperfect, after all those had been healed, which the epithem had brought to suppuration. Electricity likewise, though it forwards some tumors, will assist the resolution of such as are not disposed to suppurate.

I KNOW it is an opinion with some people, that scrophulous swellings ought not to be invited to suppuration; though not from an idea that they will heal less kindly in consequence of early maturation, but solely from the difficulty of healing them whenever suppuration takes place, and the abscess is burst. But since scrophulous tumors, and particularly those of the neck, almost constantly end in suppuration, at one time or other, though not at all invited to it by art; and since experience has proved the very considerable advantage of bringing them to an early and

* This is likewise the best remedy, I believe, for the incipient bronchocele, which it disperses sometimes in the space of a few weeks, if very well rubbed into the part at least three times a day, and a piece of flannel well greased with it, be kept constantly to the throat. The patient at the same time ought to take a dram or two of the Sal Rupil. every morning.

copious maturation, which both prevents so much of the glands being affected, and occasions a more perfect dissolution of that which is already distempered, I can confidently advise the early use of the suppurative epithem,* in preference to every other remedy, unless it be convenient to make trial of sea-bathing. It will be a means of preventing many of the sad effects of leaving these tumors for months, and even years to themselves, (as I have seen them) in habits of body so ill-calculated to get rid of disease; and wherein medicine is universally acknowledged to afford so little assistance.

But should a scrophulous tumor in this part be unusually large, it may be treated in a somewhat different manner; it should, however, be speedily brought to suppuration, by the epithem already mentioned; or should this be done to our hand, as it will consequently contain a good deal of pus, the glands will thereby be already considerably dissolved. On this account, there will not only be less occasion for so bold a use of the precipitate, but the extent of the tumor being considerable, it will be of consequence to preserve a good deal of the skin, if there be no objection to doing it. Therefore, if that is not in a very bad state, (which it frequently indeed is, before large tumors suppurate plentifully) it will be found very convenient to open the abscess, by making only

* Hence, probably, it is that the *Malvern-Waters* have sometimes proved so beneficial in these cases. See a note on the *Malvern-Waters*, in the *Treatise upon Ulcers*, pages 101, 102.

a puncture with a lancet, first at the top, and then at the bottom of the tumor, sufficient to pass a seton through it; or it may be done at once by a small seton-needle, armed with a slender skaigh of cotton or silk. Besides every other advantage of this method of discharging the matter, which will also be gradual, is the exclusion of air; a point scarcely enough attended to in the treatment of abscesses. The seton being introduced, should be drawn up and down at least twice every day, and sometimes be moistened with some proper deterfivè ointment; and occasionally sprinkled with precipitate. The constant irritation of the seton, will tend to dissolve the remaining hardness of the glands, far more than any common poultice, which frequently serves only to destroy the skin without affording that stimulus to the parts underneath, which this sore always requires. The irritation of the seton will also dispose the bottom of the abscess to throw up healthy granulations, the moment the hardness is dissolved, and the sore will thereby heal up kindly, more expeditiously, and with much less scar, than could be expected from the extent of the tumor; no more than the marks of the punctures, and a little redness of the skin, as it was observed, remaining afterwards to be seen.

Should the punctures made by the seton, however, not be disposed to heal in a reasonable time, after the silk is withdrawn (which should be gradual, by removing a few threads at a time,) and yet no fresh hardness take place, nor the discharge be increased;

the little orifices may be easily dried up, by dressing them twice a day with bits of lint dipped in a mixture, consisting of a little new milk, and a drop or two of extract. saturni, which by this means will be thickened to the consistence of a liniment, and becomes a very useful application to many other very troublesome ulcers; of which I first saw the good effects some years ago, in a very different case, under the direction of *Mr. Watson*.—If the edges of the punctures become callous, a few touches with the lunar caustic will soften them, and dispose the punctures to heal.

If I might be permitted to offer any farther hints on these troublesome sores, and to judge from some favorable circumstances joined to a little experience, I should hope the last mentioned method may afford some considerable assistance in some scrophulous abscesses about the joints of the upper extremities, if the patient be likewise sent to the sea; which I have seen attended with the happiest effects. As for those on the lower ones, besides every other disadvantage they labour under, that of depriving the patient of good air and exercise, forbids me to expect any very material improvement upon the common method of treatment.

These things are all I mean to propose for these ill-conditioned tumors, which I believe, indeed, will often require no other assistance. And I am persuaded, more may be effected by them, and much sooner, than is frequently done by the various alterative medicines, and other means that are generally prescribed;
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unless in some instances, it be sea-bathing, the great advantages of which are extremely uncertain, and to be known only by the trial of it: every practitioner having found his utmost expectations exceeded by it in some cases, whilst in others, his patients have returned from the sea much worse than they went there. At all events, the above plan may with propriety take place in the winter season, when sea-bathing is thought by some practitioners to be attended with hazard, to delicate habits: or should even that be determined upon, the sores may be treated in the above manner at the same time.

It is not unlikely, that such a use of the precipitate as I have now been recommending, may be already known to other gentlemen of the profession, but it is certainly not the common practice, nor has it, I believe, ever been made public;* and from what I have known myself, and been informed of by others, of the success of ordinary means, I can venture to say, that the cure will often be more expeditious and certain, as well as less unpleasant, if the plan should be generally adopted.—It is scarce necessary to add, that after the cure, or just before it is completed, it will often be adviseable to open an issue in some convenient part of the body, as well as to attend

* Since the first edition, I have observed in the *Praxis Barbetiana*, that the use of escharotics is recommended as adapted to these sores; but it is mentioned only in a general way, as being serviceable after lenient applications have been made use of in vain; which is a maxim equally applicable to most other sores.

carefully to the diet, and continue the exercise for a time.—Should the patient have been subject to ophthalmia, or have other mark of scrophula in the habit, these will be additional inducements for making a trial of sea-bathing, which he should not only continue through the season, but return to it the following summer, if it has been evidently beneficial. Should a disposition to ophthalmia return, or other weakness of the eye take place, other remedies will be requisite, as will be noticed in the following tract.



BRIEF

B R I E F H I N T S

ON SOME OF THE

MORE COMMON DISEASES

OF THE

E Y E.

D I S O R D E R S

OF THE

E Y E.

HAVING in the preceding observations had occasion to mention the scrophulous ophthalmia, I shall in this edition drop some farther hints on that complaint, in a few additional pages on the more common disorders of the eyes, which may, at least, serve to direct the young practitioner.

There is, I believe, no part of the human body whose diseases have been more the subject of empiricism than the eye, though no part can be more important to us, nor intitled to more cautious treatment.

A principal occasion of these complaints lapsing into such hands, is, perhaps, the very great uncertainty in the operation of the best remedies, owing to the variety of constitutions in the subjects of them, as well as to the very different treatment these disorders require at different periods. Hence the

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numerous eye-waters we hear of (and so much extolled by surgeons as well as by empirics,) many of which, I doubt not, have been very serviceable in their turns, but are all equally improper, as general remedies. This necessary diversity of treatment is, however, very well known to every good practitioner, though the precise period for a change in the remedies is not so readily ascertained.

THE chief difficulty in the cure of ophthalmy arises, I apprehend, from the great irritability of the organs of sight, and their disposition to excessive relaxation; but between these also, there is a distinction frequently to be made, that is of the greatest importance, but has not, I think, been very generally observed. These symptoms, indeed, sometimes exist together, and are dependant on one another; but what I design to remark is, that in disorders of the eyes, there is a specific difference between them, to which we are carefully to attend, as to an important guide in our practice. And this will be very evident to the attentive practitioner, from the consideration of sedative applications so frequently failing of success, in apparently irritable states of this organ, whilst bracing applications will as often prove exceedingly prejudicial in cases attended with great relaxation.* Hence it must happen, that

* It is very probable, it may be on this account, that the thebaic tincture has proved so beneficial in a great variety of cases, related by *Mr. Ware*, wherein neither the wine alone, nor opium dissolved

that either the particular affection has been mistaken, where only one of them has existed, or it has not been rightly ascertained which has been the primary affection, and the proper cause of the other.

Indeed, surgeons are well acquainted with the circumstance of relaxation, and have well known how liable the eyes are to be so affected in consequence of almost every considerable inflammation; and have therefore paid great regard to it in their treatment of common ophthalmias. On this account, they have carefully avoided urging any antiphlogistic plan beyond a certain time, and particularly as to the use of very relaxing, and warmed applications; which often occasion irreparable mischief. I have however reason to believe, there is yet occasion for other cautions on this head, and room for improvement. A very different observation may therefore be made respecting bracing and invigorating applications, which notwithstanding the irritable disposition of the organs of vision, and the pain that frequently attends such applications, are sometimes most useful when rendered sharper, and more irritating than those in general use—*Dolor dolorem cedat*, is a well known adage, and often as applicable to painful affections of the eyes, as to many other instances of spasmodic affections; though the good effects of irritating applications may, perhaps, be otherwise accounted

dissolved in water have had a like good effect: a circumstance I am disposed to credit, though I never thought of making the experiment.

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for. But the frequent uncertainty of our remedies, for the want of making adequate distinctions in regard to the length of time these complaints may have continued; their various causes; and the habit of body of the patient, has given rise to a hundred different remedies of the same class; has puzzled young practitioners; and has promoted the cause of empiricism.

As the intention of such observations as can be contained in the limits I have assigned to myself, can only be general, I shall hasten to attempt some improvement of the above remarks, and to point out some practical directions for the treatment of these very common, and very distressing complaints.

AND first, in respect to the period of true inflammation, it may be remarked, that whilst the best practitioners have been properly cautious of not continuing too long any antiphlogistic plan, they have, perhaps, sometimes not done enough in the period devoted to it. The fact is, that in very considerable and recent inflammations, in athletic habits, the antiphlogistic plan ought to be pursued boldly in the beginning, whereby the inflammation will be more certainly overcome, and with less risk of bringing on hurtful relaxation, than by gentler means, and a feebler process, longer continued. To this end, both hands (if I may be allowed the expression) should be laid on the disease, and whatever may appear requisite for subduing the inflammation, should be done at once. Hence, bleeding in all the different forms, blisters, cathartics, and nitre, (which latter
should

should be exhibited with great freedom) sedative collyria, (and sometimes anodyne fomentations) become the proper remedies; as well as defending the eye from a strong light: and if the pain be very considerable, an opiate should be taken at going to rest. Where the discharge is acrid and abundant, a drop or two of some soft mucilage instilled between the lids, is very friendly to this delicate organ; and when the inflammation has begun to give way, two or three drops of laudanum applied in the same manner, at going to bed, has sometimes removed the complaint before the next morning.

When such an antiphlogistic plan has been properly pursued for two or three days, it becomes time to think of guarding against relaxation, and which a much longer continuance of such a plan would, in many instances, infallibly produce. Tonical applications and internal remedies, and among the latter, especially the bark, are to be used, which if it be the proper time for them, will immediately produce a good effect; and if they do not, must not, for the present, be persevered in. It is not, however, a distention of the vessels of the tunica conjunctiva with red blood, that forbids a recourse to such means, or to the continuance of them; for this will happen either from relaxation, or from an irritable state of the part, as well as from true inflammation; between each of which, it has been said, the practitioner ought to make a careful discrimination, and to adapt his remedies accordingly.

Indeed, the treatment of very recent inflammations
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of the eyes, is generally plain and obvious, and no one is at a loss for suitable remedies; but in habitual affections of these organs, where frequent returns have induced other symptoms, and disposed the parts to peculiar relaxation, or irritability of its vessels and nerves, the greatest skill is required to distinguish them, in order to form a rational and successful method of cure.

This is a matter of the greatest importance, and it has been hinted, is not always so easily done; it is a knowledge to be acquired as much from experience and great attention, as from those just principles of art, acquired by a regular education. There is a something, however, in the appearance of the eyes, which is not easily described, that will assist us in making this discrimination; and which taken in connexion with the present occasion of the complaint, the frequency of its appearance, and the constitution of the patient, will lead the attentive and experienced practitioner to discover, whether simple relaxation, the mere effect of the antiphlogistic plan, and habit of the patient, or whether the great irritability of the organ, and perhaps of the whole system, be the symptom to be particularly attended to. For in cases attended with great nervous irritability, or where the relaxation is immediately occasioned by it, besides a frequent, but variable relaxation of the iris, there is often to be perceived a fulness, and a sense of weight is felt, in the upper eye-lids, which are inclined also to drop, accompanied with a yellowish tinge of the tunica conjunctiva, that seldom
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leaves the patient entirely, and is suddenly recurring upon every little cold, or increased exertion of the organs of sight. Besides the indications to be obtained from an attention to the habit of body, the above symptoms will not be usually met with in cases of simple relaxation, where mere astringent applications prove useful, which in the former will always serve to aggravate the complaint; as will even dashing with cold water, so often very serviceable in the other. Whether the complaint be owing to simple relaxation, or to mere irritability of the parts, when this is once fully ascertained, good practitioners are at no loss for suitable remedies, and as I would not appear to multiply them by needless prescriptions, where practitioners are acquainted with varieties enough, I shall only say, that if it be mere relaxation, the astringent solution I have so often recommended is among the best in a fluid form, where a powerful bracing application is called for; and may be made of any strength, as occasion may require.

But there is in many people an irritability of habit, of which every complaint they are seized with, will very powerfully partake, and more especially complaints of the eyes; and when that organ has been often affected, the slightest occasion will cause a return of them. Here, the practitioner will be at no loss for a proper diagnostic, and I shall therefore only observe, that applications partaking both of a sedative and invigorating nature, should be immediately had recourse to. A very powerful remedy very often in
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these cases, is an aromatic volatile vapor, * conveyed to the eye-lids, through a small inverted funnel, especially at going to bed; and from which I have seen astonishing effects, where the patient has been for years subject to distressing complaints, and in danger of losing the sight. Some benefit may likewise be obtained by daily touching the upper eye-lids and parts about with the Spir. Volat. Aromat. These little means have also been very useful where I have suspected a disposition to cataract and gutta serena:† in which, as well as the above-mentioned cases, the cautious and long continued use of electricity, it is now well known, has also been very frequently serviceable.‡

I may here add another observation, derived from repeated experience in what I would call a nervous ophthalmia, in regard to the use of collyria; which, though *a priori* we should presume ought ever to be

* Two drams of the Spir. volat. aromatic. in two ounces of water, kept boiling, will answer this purpose very well.

† By the same means, I likewise once removed a very painful nervous affection of the testes of long standing, which had rendered the parts so exceedingly irritable, that it could scarcely endure the lightest touch, and had rendered a married gentleman very miserable; having withstood many ordinary means of cure.

‡ For the first hints of the great advantages of a long continued course of electricity in the *gutta serena*, and even a perfect cure in several recent cases, I was indebted to Mr. Hey, one of the surgeons of the Infirmary at Leeds; some of which cases have since been published in the 5th vol. of the *Medical Observat. and Inquiries*.

used

used cold, are nevertheless oftentimes instantly beneficial upon using them actually warm, especially in cold weather. Of the propriety of this change, the sensations of the patient upon the use of cold collyria will frequently be a guide to us; and I have only to remark, that they ought not to be used warm for any length of time, in which respect however, the intelligence of the patient may again serve to direct us.

Amongst the means for removing great inflammation, was mentioned the defending the eye from a strong light, which is indeed indispensibly necessary. This should, however, be rarely extended to keeping the patient's room perfectly dark, or covering the eye itself in such a way as to exclude all contact of light;* as such covering, by heating the eye, will always

* I hope it may not be deemed altogether impertinent in this place, to offer a few obvious cautions, scarce sufficiently attended to by those whose eyes are naturally weak, or slightly distempered. Such people ought to be peculiarly careful not only of not continuing any occasional exercise of the eyes after it becomes painful to them, but as much as possible, to be always exposed to the same degree or quantity of light. This attention is particularly necessary when engaged in reading, writing, or other employment that is likely to fatigue them: too little, or too much light being equally improper when the eyes are much exercised; and is, indeed, at any time injurious. The sudden transition from a dark to a very luminous aspect, and especially if often repeated through the day, has nearly produced blindness in several instances; and patients have been recovered from the danger by little more than attending to this circumstance. For the like reason,

always add to the complaint. But in cases of constitutional ophthalmias, and particularly in scrophulous habits, a perfectly erect posture, throughout the day, with the head raised as much as may be, at night, is essentially necessary, and eminently useful; inasmuch that frequently, no means of cure will succeed unless this be very strictly attended to. In repeated inflammations, in patients of such a habit of body, I have known this alone efficacious, after many means had been prescribed in vain by men of long experience, and where an obstinate inflammation had been kept up for several weeks, and the patient unable to endure the least glimmering of light, or to open the eye-lids without the most excruciating pain. And such ophthalmias, indeed, very frequently need nothing more than this caution, except it be to give a laxative occasionally, and to touch the eye-lids, now and then, with an ointment I shall presently mention; and especially to admit light gradually into the room, as the patient shall be able bear it. In regard to medicine, nothing, I believe, does so much good as the bark,

reason, reading in the dusk of the evening, and then, suddenly, by a strong candle-light, may induce mischief in weak and dis-tempered eyes, that may not be discovered till too late to be remedied. I shall close this note by observing, that when reading a small print, without the help of glasses, becomes painful, such reading should be laid aside; as glasses, in this case, only strain the eyes, and should never be taken up till a uniform necessity shall oblige, and then should not afterwards be laid aside; it being a shock to the optic nerves to have the like objects variously represented, perhaps a hundred times in a day.

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and should this not prevent frequent relapses, the patient, it has been said, should make trial of the sea; which is more frequently useful in scrophulous ophthalmias than in any other instance.

Something has already been said in favour of invigorating applications, which for the chronical ophthalmia, and that tedious one which sometimes follows the meazles and small-pox, as well as in many scrophulous cases, ought to be made much more active than they usually are, and of which I have had many happy instances. But, indeed, many inflammations of the eyes, that are apt to return frequently and upon slight occasions, are rather owing to an atony of the parts, than a true inflammatory cause, and will therefore always be benefited by such applications. And these should be applied in an unctuous form rather than in a way of lotion, and will be found to be a very considerable improvement. Hence it is, I apprehend, that *Sir Hans Sloane's* liniment formerly gained so much reputation, and has so often been of service; its only virtues, however, consisting in its form and the powder it contains, which affording a slight stimulus to the parts, is rendered more permanent in the form of a liniment, than any fluid collyria can afford. Ointments against inflammatory affections ought not usually, however, to contain such kind of powders, which often do harm, and can furnish no powers that cannot be otherwise obtained, and especially by some preparation of mercury; which indeed will do more in many ophthalmias than any other kind of reme-

dies. The due irritation and discharge such remedies occasion, the first two or three times they are made use of, throw the atonic parts into healthy action, and liberate the vessels; from which I have seen more good effected in one or two nights, than has been done in weeks and in months by sacchar. saturni, white vitriol, and all the other ordinary ingredients of fluid collyria.

Such may be made by the addition of the unguentum cærul. fortius to the ceratum album, or if a greater stimulus is required, by one or two drachms of the mercur. corrosiv. ruber, very finely levigated, to half an ounce of unguent. alb. and the like quantity of olive oil; or what is frequently more efficacious, a kind of unguentum citrinum, of different strengths, prepared with fresh butter, and to which camphire should be added. The inside of the eyelids only need to be touched with one of these, at going to bed, and though they will sometimes occasion very considerable pain at the time of their application, and on first opening the eyes the next morning, they will render the parts very easy and pleasant through the rest of the day.—Indeed, had I nothing else to offer on diseases of the eyes, than the careful distinction between the true inflammatory, and chronic ophthalmy, (which is seldom sufficiently attended to) and the substitution of these liniments for fluid collyria, I conceive I should deserve well of the public. I am not ignorant, indeed, that such remedies are made constant use of by some gentlemen of the profession, who have been far from taking
pains

pains to make their virtues generally known ; which they certainly are not.—Nor should gentlemen of more liberal sentiments, at the head of the profession, conclude every publication needless that may contain nothing new to them ; nor suppose, that because they make no secret of their knowledge, that the generality of practitioners are as wise as themselves.*

A common impediment to the cure of ophthalmias, is a bad habit of body, which though an obstacle common to other complaints, is especially troublesome in these. Amongst the various remedies in common use on these occasions, beside issues, the bark, and warm pediluvia, which are very frequently beneficial, I shall venture to suggest one, that may be given to advantage where no other remedy may be peculiarly indicated ; this is, calomel joined with

* Since this paper was drawn up, I have seen *Mr. Bell's* observations on *ophthalmia*, the early publication of which does him great credit ; but as he speaks more from the practice of *Mr. Pellicier* than his own, there seemed still to be sufficient inducement for adding my mite of experience.—It was long after the above note was added to the manuscript, that I was informed *Mr. Ware* had written so fully as he has done, on these complaints. And had I seen his useful publication before I had prepared the present tract, I should not have thought of writing on the subject. I can, however, declare, that as I have made no addition nor alteration, whatever, (except the notes inserted at pages 18, and 33,) since I heard any thing of *Mr. Ware's* treatise, so did I not hope there may be hints in the present that will have their use, I should even now have suppressed it.

cicuta, a remedy not in very common use, but well adapted to many old and obstinate diseases of the eye.

NO common complaint is oftentimes more difficult of cure than affections of the eye-lids. These are sometimes attended with a distention and redness of the vessels of the eye, and sometimes not; but vision is always impaired. In some instances, likewise, the edges of the eye-lids discharge a very acrid matter, which excoriates the cheeks; and in others, the lids are red and ulcerated, but almost dry.

In these cases, it is well known, that a cautious use of the lunar caustic will sometimes effect an almost instantaneous cure; but I believe, it has not been often enough noticed, that a turning inwards of the eye-lashes is sometimes the sole cause of this very obstinate complaint: the remedy for which is sufficiently obvious. In other instances of the lippitudo, the common mercurial ointment, or that with red precipitate, proves very serviceable, but more especially, the unguentum citrinum, prepared as before-mentioned, a remedy perhaps scarcely to be equalled for this, and many other small ulcers. I have also seen great good effected, in a few days, by a very old remedy made use of frequently in *St. Bartholomew's* hospital, and for which I am obliged to *Mr. Pott*, and doubt not his permission for giving the prescription; though my own experience, indeed, goes to a preference of the unguentum citrinum.

R. La-

℞ Lapis Tutiaē ppt.

Calamin. āā ʒ iij.

Plumb. ũft.

Gum. Camphor. āā ʒj.

Myrrhæ,

Sarcocoll.

Vitriol. alb. āā ʒ.

Butyri infulfi. ʒvj.

Accuratè mifceantur.

THERE is another and often fatal inflammation, efpecially to infants, of which there is not much notice taken by writers ; nor has it, I believe, been accurately diftinguifhed till of later years : it is now ufually termed ophthalmia purulenta, on account of the vaft quantity of thick matter always difcharged.

This may be efteemed a diforder both of the eyes and of the lids ; but is in fact a fevere inflammation of the whole tunica conjunctiva, which goes rapidly into a ftate of general fuppuration, and is fo much thickened where it is reflected over the lids, that it turns out a confiderable way the moment they are drawn afunder. Very frequently the inflammation is communicated to the cornea itfelf, which will fometimes burft, and the patient is confequently deprived of fight, at leaft for a time. Very foon after this, both the inflammation and difcharge generally ceafe ; and the aqueous humour being in fome cafes reftored, and retained by a fpeedy cicatrice of the cornea, the patient recovers a very tolerable

degree of sight. At other times, some internal part of the eye, and particularly the iris, is so greatly injured, or the cornea is so much impaired, that it remains collapsed, and all hope of future vision is cut off. In any case, the patient rarely recovers without the sight being more or less impaired for a time, by a greater or less number of specks formed on the cornea. Nevertheless, we are frequently agreeably disappointed at the decline of this dreadful inflammation, and have the happiness of finding the eye much less injured than had been suspected, either from the great discharge and long continuance of the inflammation, or from the appearance of the eye itself when we were first able to get a sight of it. For I have sometimes known the whole cornea apparently much depressed, and at others, smaller indentations formed on different parts, and after all, the sight been perfectly good as soon as the inflammation had completely subsided, without either cicatrice or specks to be seen on the cornea.

This being, perhaps, the most violent of all inflammations, requires the speediest assistance. The patient should be let blood freely and repeatedly, (according to the age and habit of body), especially in the neck, or by opening the temporal artery; the turgid vessels passing over the sclerotica should be frequently divided; leeches should be applied to the temples, and blisters to the neck, and behind the ears; the patient should be purged gently; and the thickened tunica conjunctiva should be deeply scarified once or twice a day, as long as it falls out so
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low as to prevent a clear sight of the eye. The part should at first be constantly wetted with cooling collyria, to which afterwards a little brandy and vitriol may be added, and a drop or two of laudanum be instilled into the eye, and every thing be attempted that may prevent or diminish suppuration; which I have known take place in a very few hours.

Should these means fail, or what very often happens, assistance be called in too late, the lids must be frequently drawn asunder to let out the matter, by night as well as by day; and in the case of infants, in whom the matter will be more confined, the edges of the eye-lids should be frequently greazed throughout the day, and at night be covered with a little of *Goulard's Cerate*, spread upon very thin linen, and over that a light compress, hanging loosely over the eyes, dipped in the vegito-mineral-water and brandy, or spread with a kind of liniment made by beating up alum in the white of an egg. Should the inflammation and discharge still increase, a drop of laudanum, or of a solution of the green vitriol calcined to whiteness, should be instilled into the eye, at least once a day; which, whatever pain it may occasion at the time, will counteract the inflammation more than any of the topical applications at a certain period of the disease, unless it be some one of the mercurial liniments before recommended.*

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* In MR. WARE's Treatise on *Ophthalmia*, strong commendation is given to *Bates's aqua vitriolica camphorata*, diluted with about sixteen times its quantity of water, as a collyrium, to be made

In fine, the grand remedies, early in the disease seem to be blisters and topical bleedings, especially by leeches; but then it is not the application of one or two that will answer any good end, though often repeated; but if six or eight to a child of four or five years of age, and a dozen to adults, be applied at once, especially at going to bed, a stop will frequently be put to the most formidable inflammation, and nothing farther be required than the use of some astringent collyrium, and to attend to the specks, should any be formed on the cornea. On the other hand, should the inflammation continue many days, astringent applications must be had recourse to, and the cortex be administered in large doses.

THERE is an ophthalmia still less noticed by writers than the former, which occurs seldomer than any other; and is rarely cured if not attended to very soon. It might be called *ophthalmia interna*, being a suffusion of blood within the coats of the eye, appearing through the pupil; while the conjunctiva oftentimes preserves for a while its natural colour,

made use of from the first appearance of this inflammation. I have had only three opportunities, indeed, of making trial of it since that excellent tract was put into my hands, and in which it succeeded very well. But apart from this little experience of its efficacy, MR. WARE's ideas of the complaint appear so perfectly to correspond with my own, that it would seem to me an injustice to such readers as may not be acquainted with that work, not to mention a remedy apparently so well calculated to counteract inflammation, and recommended upon such authority and experience.

though

though at others, I believe it has, from the first, the appearance of the common ophthalmia; this, however, usually comes on in one stage or other of the disease.

It is sometimes a complaint of long standing, stealing on for a while almost imperceptibly, till the patient is alarmed at being, suddenly, almost deprived of sight; which sometimes as unexpectedly returns in a short time, and goes away again as suddenly. It seems to be attended with some disorder of the optic nerve, the pupil being somewhat dilated, and the retina rather indisposed to contract, though the eye be exposed to a strong light.

It attacks people of different ages, and in young women is often attended with suppression of the menses, the return of which sometimes removes the complaint. I never met with it in robust habits, nor have found general bleedings, or other antiphlogistic remedies of any use. Topical bleeding by leeches, and in the jugular vein, are preferable; and electricity has sometimes been serviceable, though it has in others appeared to increase the complaint, which seems to depend upon the irritability and relaxation of the organ. Bark, therefore, and a blister on the head, touching the lids with ung. citrin. and dropping a little laudanum often into the eye, scarifying the under-lids, and in the end, I think sea-bathing, are the most likely means of relief.

It will oftentimes be necessary to continue these remedies for a great length of time, having seen good effects produced by them after I had nearly given up
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all hope of doing any good. It always, I believe, attacks both eyes, and if attention be not paid to the complaint before the conjunctiva is much inflamed, the patient will after all most probably be in great measure deprived of sight, the cornea, in that case, becoming perfectly opake.

I SHALL only drop another hint or two, and shall conclude all I mean at present to offer on disorders of the eyes. It may, perhaps, appear to be a bold one, and by many people be condemned, as likely to injure so delicate an organ; but it is given from experience, which at first arose from accident, and in proper hands may be as safely, as advantageously used. This respects the extractum saturni, which I have known made use of, undiluted, to advantage. I have, indeed, never made trial of it in this state, but have used it in the proportion of one drop to three or four of water, and have never seen it do harm; or the extract may be mixed up with olive oil into a liniment, which will give less pain, and will remain longer on the part.

It has already been said, that the chronical ophthalmia often arises from atony, and it as frequently depends upon a morbid, or undue action of the parts, which in numberless instances is more certainly removed by active applications, than by any other means. I have long been satisfied of the justness of this idea, which I have so much inculcated in the former parts of this tract, and am happy to find a gentleman of so much reasoning and judgment as *Mr. Hunter*, supporting it by so many striking facts, in

in his late treatise on the venereal disease. Indeed, we have often nothing else to do in various old ulcers, in certain habits of body, than to create a contrary and due stimulus, in order to remove pain, tumour, or spurious inflammation, and various other local indispositions, to which a morbid action of the parts has given rise.*

By this means it is, I doubt not, that the remedy last recommended, as well as the mercurial ones, have been of so much service in the most obstinate and long continued ophthalmias, after every usual remedy had been tried without any lasting good effect.

* It may be objected, perhaps, that a great deal has been said in the course of this little volume in favour of active applications; but the writer hopes, without reason for the least suspicion of his supposing them capable of doing every thing, or that a trial, at least, ought to be made of them on almost every occasion. Nothing, indeed, is farther from his own ideas, who wishes only to lead young practitioners to distinguish cases with judgment; and having done so, he doubts not they will find, that powerful external stimuli will have their place, and perhaps more frequently than may have been suspected, and upon the most rational principles. And as a general apology, he would here observe, that he sat out with no peculiar theory of his own, but being gradually and naturally led to the various trials he has made, repeated facts have constrained him to pursue a practice which has been very successful, in his own hands and others; and he has the happiness of finding it may be supported by sound reasoning and argument, which it required but slender abilities indeed to discover, or to arrange into as specious a theory as a practice founded upon facts can ever stand in need of.

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A very small portion of the former may be applied, by a camel-hair pencil, when the patient is in bed, and after a few times using, be repeated in the morning, if the complaint be not greatly abated, nor the means disagree. The vast discharge produced in many chronical cases by such stimulant applications, and the action into which they throw the parts, are often the most likely means of removing many obstinate complaints, not here particularly noticed, which have thickened the cornea, and not only greatly impaired the sight, but have obliged the patient to keep the eyes in a state of rest for many weeks, and even months at a time, and occasionally for several years.

I shall just observe what every one knows, that severe ophthalmias induce small specks, and sometimes very considerable opacity of the cornea: it is, however, perhaps not very generally known, that so simple a remedy as two or three drops of the aq. sapphir. instilled into the eye for a length of time, infallibly removes all that have not been of very long standing, without the painful and disagreeable assistance of caustics or other remedy.

I shall now close the above observations with the following extraordinary case, which may serve to shew what nature is sometimes capable of doing for herself.

MRS. HOPPEY, aged about thirty years, the wife of a grocer formerly of *Great Russel-street, Bloomsbury*, was attacked with the common symptoms of ophthalmy, at a time I was making occasional visits to
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one of her children, and was therefore desired to look at her eye. The charge of the complaint was not, however, properly committed to me, but from time to time I gave such directions as appeared to me to be requisite; which were not, indeed, so perfectly complied with, as perhaps, they ought to have been. At one of these visits, thinking it necessary *Mrs. Hoppey* should be blooded again, on account of the severe pain she underwent, it was strongly objected to, and as I afterwards understood, on account of some scruples her apothecary entertained, who had formerly practised as a surgeon in the country. On this account, the late SIR CÆSAR HAWKINS was consulted, who approving of the plan that had been pursued, and intimating the importance of great attention in order to her safety, I afterwards visited *Mrs. Hoppey* daily, and SIR CÆSAR HAWKINS was occasionally consulted.

Soon after this time, and on the abatement of the inflammation, she lost the sight of the eye, which likewise began to be enlarged, and pushed forwards, the vessels of the lids, sides of the nose, and forehead were swelled, and were attended with considerable pulsation. These symptoms increasing for several months, notwithstanding different means made use of, till the eye became greatly enlarged, and seemed nearly forced out of the orbit; it was therefore judged proper to extirpate it, in the apprehension of an aneurism within the orbit, which it was expected might suddenly give way. About this time, *Mr. Watson* was likewise consulted; the operation was deter-

determined upon, and the day for it was to be fixed as I should settle with SIR CÆSAR HAWKINS.

In this interval, I met with an accident by a fall, which confined me for three or four weeks to the house, and I requested SIR CÆSAR HAWKINS to perform the operation for me, if it should be thought that waiting for my getting abroad might be hazardous to the patient. After making *Mrs. Hoppey* a visit with a view to settling this matter, SIR CÆSAR HAWKINS called upon me, and proposed deferring the operation a few days; adding, that he conceived the eye had rather a better appearance, and though he, perhaps, rather *hoped*, than was *satisfied* of this particular, he thought it might be trusted for a few days, with the cautions and directions he had given the patient. In about a week after this he acquainted me, that he wished the operation might be postponed a while longer, as the tumour was certainly not increased, if it were not diminished, and of which I should be a better judge, as I had not seen it for some time.

As soon as I could get abroad I waited upon *Mrs. Hoppey*, and was satisfied the eye was not more enlarged, nor projected, than it had been, and I thought the pulsation was diminished; the pain likewise being less, and time having encouraged our patient as well as ourselves, to hope there might be less danger of a sudden rupture than we had once apprehended, all thought of extirpation was soon afterwards laid aside, unless some new symptom should indicate its necessity.

During this suspense the pain became very considerable,

siderable, and I saw my patient only once a week, and a while afterwards the pain leaving her intirely, I visited her only once in a month, for above a year. At one of these visits I was informed she was well, and though she knew not for certain when the change had first taken place, she had a few mornings before observed, whilst standing at her glass, that the affected eye looked nearly as well as the other; and that upon closing the latter, she found her sight also was perfectly restored.

Upon this agreeable news I took a formal leave of her, only when I had occasion to visit any of the family, or was at leisure when I passed near her door, I inquired after her, and examined the eye; which for several years continued very well, having only a certain awkward look, and a kind of squinting that never totally left her.

Eleven years after her recovery she went to reside at *Manchester*, and continued there in very good health; the eye formerly affected becoming, as she thought, stronger than the other, but was sometimes a little painful in frosty weather.

Nine years after retiring into the country the squinting was observed to increase, till the eye was turned quite to one side; it was likewise pushed a little forward again, though the sight remained unimpaired. But some weeks after this, she was suddenly attacked with excruciating pain, which obliged her to go to bed in the middle of the day, and send to her apothecary; who applied a blister to the nape of the neck. In a few hours after this attack,

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she lost the sight of the eye, which instead of continuing to push forwards, was rather withdrawn within the orbit, and the upper eye-lid dropped; which she never afterwards raised.

This violent pain continued for three days, which she compared to that she had suffered in *London*, about the commencement of the complaint, and which she observed, continued very severe the same length of time. At the decline of the pain, she became at times comatose, and after lying in that state for five days, she expired at the time, as I am informed, she was thought to be recovering. I am sorry to add, that, though she had very considerately given her consent to the head being opened after death, her hint was neglected; which had she died in *London* I should have been happy to have embraced, and thereby have ascertained exactly the nature of the complaint.



TREATMENT
OF THE
MAMMARY-ABSCESS
AND
SORE-NIPPLES
OF
LYING-IN WOMEN.

T R E A T M E N T

O F T H E

M A M M A R Y - A B S C E S S , &c.

BEFORE I speak of the milk-abscess, I shall in this place observe, what perhaps some gentlemen may thank me for, that I can venture to say, the astringent solution I have so frequently recommended, is the best application hitherto known for that obstinate and painful sore on the nipples of suckling women, for which almost every thing has been tried—and almost in vain. The nipples need only to be touched with it several times in the day, either by the point of the finger, or a camel-hair pencil; the part being afterwards covered with the patient's hand, or other contrivance, to prevent the solution being wiped off; the strength of which must be determined by the degree of tenderness and extent of the sore. I think I have found some advantage in these cases, and certainly, in drawing out a bad nipple, by covering it with a large nutmeg, hollowed

out, and the edges left flat. But whether the warm aromatic quality of the nut has contributed to this, or it has arisen merely from defending the tender nipple both from the linen, which becomes rough by the milk drying upon it, and from the common air, I am not at all anxious to determine. Such a contrivance is always at hand, and attended with no trouble though worn pretty constantly, and I therefore often advise the use of it as soon as the nipples begin to get sore. This is likewise, doubtless, the best time to have recourse to the solution, which has hitherto answered exceedingly well, ever since I have been acquainted with it. In some very bad cases, where the chaps are so deep that the solution cannot be retained on the part, and are exquisitely tender, especially if of long standing, it will be useful to cover the part with an ointment that is not relaxing, but moderately warm and drying, as the common white cerate may be rendered, by simmering a little brandy in it. A case sometimes occurs, in which the nipple is not so much chapped, as it is enlarged and inflamed, and attended with an oozing of sharp serum. Here, after washing the part with the solution made very weak, sprinkling it with a little finely powdered gum tragacanth is of very singular service. But in other instances, my chief dependence is upon the solution, which if properly attended to, will remove the complaint. It has also stood the test of the *British Lying-in Hospital*, where it has been for a long time made use of at my desire, and with the expected success; though there are always
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in the hospital many women thus affected, and out of such numbers, it is probable, all the various kinds of sore nipples must have taken place.

It may reasonably be expected, that something should be said of the success of this remedy since these observations first appeared ; and the writer can with truth assure the public, that his own experience has not served to lessen the good opinion he entertained of it, though some other practitioners seem to have made use of it with less success. It is to be lamented, that if men are generally found partial to their own discoveries, others are oftentimes proportionably prejudiced against them ; so that, if the success of any means should depend on a more than ordinary attention to its strength and mode of application, its credit is not likely to be increased in their hands. All that the writer need to say of this remedy is, that his own patients have been greatly benefited by it, and have been glad to recommend it to others ; and that if applied with care and due attention to its strength and effects, it will be found, at least, much oftner successful than any means hitherto in general use.—The tongue will be the best ordinary test of its due strength, which must always be varied according to the degree of pain and other effects ; always beginning with it sufficiently weak. On these accounts, it can be no wonder, if it should do less good when left in the hands of nurses, or used merely at the discretion of patients, some of whom do not make use of it frequently enough,

whilst others are inclined, as improperly, to keep it constantly on the part. But in the hands of physicians or surgeons, who know what effects it is designed to produce, and will regulate it accordingly, it cannot fail to gain them credit, and give satisfaction, provided they will for a few days attend to it themselves, with a little of that pains men usually bestow on inventions of their own.

One great advantage of the solution is, that it is perfectly harmless, and does not therefore require the caution of being wiped off from the part, when the child is laid to the breast. Being also lightly astringent and deterfive, without creating the pain, or that unpleasant and harsh dryness, which other astringents produce, renders it as promising, as experience hath proved it to be successful in this obstinate complaint; which besides the great pain that attends it, has frequently frustrated a most laudable and pleasing impulse of nature, by preventing the fond mother from supplying the first wants of the tender infant, to which she has given birth.

But the evil does not frequently stop here; the pain and inflammation of the nipples often extend to the breast itself, and suppuration takes place.—I proceed therefore to make some observations on this subject, which though important, has not, that I know of, been yet publicly treated of.

It would be needless, in this place, to take up the reader's time, by adverting to the various other occasions which threaten such a complaint, since, perhaps, the only one in the patient's power to prevent,

vent, is that of taking cold ; as frequent an occasion, indeed, as any, and against which every precaution ought to be taken. With a view to this, it may be observed, that the custom of bathing the breasts of women, who do not suckle, frequently proves very injurious, though it has not, perhaps, been generally suspected. The rubbing in a little oil and spirit, as soon as the patient is delivered, may be harmless enough ; though if something must be done, in compliance with custom, the application of a diachylon plaister will answer every ordinary intention, without any of the disadvantages which attend the frequent repetition of useless embrocations, which expose the part to taking cold. And as the above, and any other such lotions as nurses usually recommend, and place great confidence in, have no such power as is generally attributed to them, they are certainly much better let alone. And if it should be thought proper to have recourse to such as actually possess any considerably repelling property, they will, of course, be directed by the practitioner himself, who will give every necessary caution ; as the consequences of cold taken in the application, are generally much more likely to give rise to suppuration, than leaving the business to nature.*

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* It is perhaps worthy of remark on this occasion, that the mammary-abscess was for a number of years a very common complaint in the *British Lying-in Hospital* ; and has always been attributed to cold, as the most general cause. The justness of this suspicion

THE first symptoms of such an unfavourable turn, are usually a deep lancinating pain, hardness and tumor in some part of the breast, and a considerable diminution of the customary discharge of milk by the nipple. This is the moment to prevent the apprehended mischief, as a very short delay renders the means ineffectual; the skin soon becoming discoloured, and the breast greatly enlarged. To remedy this, immediate recourse should be had to bleeding, and to laxative and anodyne medicines; but above all to sedative applications, which are usually found to be the most powerful discutients. Sometimes, however, solutions of crude sal ammoniac, with the addition of a good quantity of spirit, and if the inflammation be very recent, some vinegar, will be more advisable than saturnine remedies. Compresses of coarse linen-cloth, wetted in such a liquor made moderately warm, and renewed as often as they become dry, are abundantly preferable to heating and relaxing fomentations or poultices, to which surgeons have usually had recourse.

When the above means are made use of in proper

suspicion has been confirmed since water-closets have been constructed on every floor. Previous to this, several women, from motives of delicacy, were inclined to go, too early, across a paved yard, though continually cautioned against it: But for full two years, since that contrivance has been made, there have been only two instances of the mammary abscess.—Though this circumstance may, perhaps, be thought to prove too much, it nevertheless being a fact, ought to have its proper weight.

time,

time, the inflammatory symptoms will soon disappear, the pain be entirely removed, and if the milk runs freely again from the nipple, there will be no farther danger of suppuration. On the other hand, if there be not a very early and considerable abatement of the first symptoms, however slowly the process may go on, the breast will seldom fail to suppurate. In this state, therefore, the plan ought very soon to be changed, in order to forward the work of maturation. And this, wherever the pulse will allow of bleeding, will often be hastened by taking away a small quantity of blood, once or twice, from the arm; though the patient should already have been let blood with a very different view. This will likewise be always a safe practice in plethoric habits, or where the inflammation is attended with fever, and the event yet doubtful: should suppuration finally take place, the bleeding will likewise tend to lessen the size of the abscess.

The whole breast should now be covered with a mild suppurative poultice,* which must be continued till

* A very good poultice of this kind, is that formerly made use of by *Plunket*, and is preferable to the linseed-cake. To half a pint of milk should be put about three table spoonsful of finely powdered linseed: after boiling a few minutes, add a small quantity of crumbs of bread, sufficient to bring it to the consistence of a poultice, to which is to be added, on taking it off the fire, the yolk of one egg. This will make a very smooth poultice, and much lighter than mere bread and milk; an advantage, in the case of much inflammation, especially in glandular parts, too obvious to be particularly insisted upon.

the matter can be felt, and may then be changed for one of mere bread and milk ; the part should also be fomented twice a day, if the abscess threatens to be large, and does not incline to ripen fast, after there are evident tokens of suppuration. The circumstance of early maturation is of the greatest importance, for in proportion to the length of time taken up in that process, will be the size of the abscess, and the time afterwards necessary for its cure ; at least, this is pretty uniformly the case.

Of no less importance is the manner of treating abscesses after the matter is well formed. And here I am constrained to oppose the antient and common method of surgeons, that of making a large opening with the knife ; which can seldom, or never be necessary. This happy idea originated from the late ingenious *Dr. Hunter*, (to whose unremitted labors in the improvement of his profession, as well as in many other instances, the public is so eminently indebted ;) and I believe, that gentlemen in the department of midwifery, at least in *London*, are well acquainted with the many advantages of sparing women this painful operation : but as it has not been noticed by surgical writers, nor, I think, sufficiently approved of by the generality of the profession, there are probably many practitioners who are not duly acquainted with it.

The impropriety of making large openings in the breast, arises, I apprehend, from its glandular structure, and peculiar use, together with the harmless nature of the complaint. But I shall not enlarge
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here, on the many unfavorable circumstances attending such a practice, and the tediousness of the cure as the inevitable consequence. I mean only to hint at a method every way preferable to so painful a process. But not only are the larger incisions highly improper, which are made with the knife, but smaller openings with a lancet are generally better let alone; not only because commonly needless, and very distressing to the patient, but the breast will heal sooner when the abscess is left to burst of itself. Hereby, we are sure the suppuration will become as compleat as the case will admit of, and the little jagged round aperture nature makes for herself, will keep open much better than the smooth puncture from a lancet. All that is commonly necessary, is to cover the part with a soft bread and milk poultice; to keep it well supported by an easy bandage; and carefully to press out the matter, and renew the poultice twice or three times a day.

I cannot avoid taking notice in this place, that whilst in one *Review* this practice is said to have been long understood, and even published to the world, (though I must still confess, that I never happened to meet with it,) a critique appeared in the *English Review* of a very different cast. To the Editor of this (as well as those of the *Monthly* and *Critical Reviews*) I, indeed, feel myself much indebted for a very respectful and candid account of the former edition of this work. Objections, however, are made to leaving milky abscesses to burst of themselves,

selves, and perhaps some of the first surgeons may be of the same opinion; which renders this point very worthy of farther discussion. It scarce need be observed, that I had myself in the very next paragraph offered certain exceptions to this rule, which, however, as a general one, I am, from the best motives, inclined to defend.

I am aware, that the patient may sometimes undergo some very considerable pain for twelve or four and twenty hours, by the matter being left to make its own way through the skin, and I have myself formerly made this circumstance an argument for opening some small abscesses; but, from a fair comparison of all the effects of each mode, am satisfied to which the preference ought to be given. For, besides that the pain which leaving an abscess to burst of itself, may without any disadvantage be much abated, or intirely removed by a dose or two of laudanum, I have on the other hand, after having opened these abscesses in order to obviate that pain, received no thanks from my patients; who partly from the dread some people have of any cutting instrument, and partly from the actual pain of the little operation, and its consequences for some hours afterwards, have on a subsequent occasion determined to leave the business to nature, and to endure with patience the effects of her operations, or at most, to stun the pain by an opiate taken at bed-time. But it has been suggested, that there are other, and more material advantages resulting from a well-timed opening made by the lancet, and that for the want of

of it, the little orifice will often be closed up, and a fresh abscess be formed. In answer to this, I must say, that I am constrained to doubt the justness of this observation. I was myself bred up to be of this opinion, and was with difficulty led to change it; but a long and pretty extensive practice, and much observation have, as I think, led me to form a more just opinion of the matter. The fact, indeed, is, that the little apertures may be very easily and certainly kept open, as long as there remains any thing to be discharged from parts with which they communicate, and that fresh imposthumations will not be formed, but in cases where other parts of the breast are in an obstructed and distempered state, and not yet inclined to suppuration; in which case, let the first abscess be opened, and treated in whatever manner it may, new imposthumations will be formed, and, indeed, in this case, are to be desired. Whereas, when other diseased parts have communicated with the first abscess, I have without difficulty kept an orifice (not larger than a pin's head) for many weeks open, till the various indurated parts having suppurated, the matter has found its way to the first and only orifice, which has discharged very considerably, and for a long time together, without any interruption; and when the breast has got well, only the smallest scar imaginable has remained. And it might be here noticed again, that the little jagged aperture which nature has made for herself, keeps open much better than one from the lancet, though made four or five times as large: every surgeon
knowing

knowing how soon incised wounds are disposed to heal up at the angles, especially if extended into the sound skin, leaving only a kind of fistulous orifice in the centre. So that upon the whole, after having bestowed much attention on this subject, it is still my unprejudiced opinion, that it is in general best to leave the business to nature; and that if there may be any merit in being the first publisher of such an opinion, it properly belongs to this little work.

The above method of discharging the matter, it was said, is usually the best; there are however instances, where I have thought small punctures made with the point of a lancet have their use. Such are cases, wherein the whole breast is very hard, and the habit not disposed to form matter so plentifully, as the indurated state of the part seems to require. Here a great number of very small imposthumations are formed, come very slowly to a head, often thicken and harden the skin, are but little disposed to break, and cease to discharge as soon as they have vent. The little tumors will even sometimes subside, if an opening is not made soon after the matter can be felt; and the induration remains a long time nearly the same. Poultices of more potential heat than those of mere bread and milk, are here particularly serviceable, as well as light frictions with a weak volatile liniment, and sometimes a cautious use of the unguent. *cæruleum*; which should not be forcibly rubbed in, but spread lightly over the breast. At this period, the exhibition of the bark is found useful in some constitutions; in others, small doses of corrosive

rosive sublimate; and I have sometimes found the decoction of sarsaparilla, and powder of millipedes, or sweating with pulv. *Doveri* of very considerable service; as well as purging now and then with rhubarb and calomel.

The worst cases I have met with, have arisen from cold taken after the end of the month, and are, perhaps, more common in women who have not suckled their children, nor been properly attentive to the turn of the milk. Here, one or more very large lumps are often pretty suddenly formed, or sometimes smaller ones almost insensibly run together, and occupy a great part of the breast; are always exceedingly hard, but are not usually painful at first. The appearance, in some instances, is very alarming, but they all nevertheless end perfectly well if prudently managed. I have been called to cases of several months standing, where the breast had entirely lost its natural appearance, had become hard in every part, flattened, and the nipple been almost obliterated. When the disease extends to such a degree, suppuration must take place, and, indeed, is a desirable event, as otherwise mischief would ensue; for I believe, an entire resolution of the tumor is not to be effected. Hence, saturnine applications, which have been much too indiscriminately made use of, are here highly improper. I have seen nothing so useful as mild poultices, and a cautious use of the unguent. *cærul. fortius*, from half a scruple to half a drachm, repeated *pro ratione effectus*, and now and then taking away a small quantity of blood;

while the body has been kept open by the sal ru-
pellens. polychrest. or other cooling laxative.

By these means, I have succeeded in cases to appearance exceedingly unfavorable, and not at first to be distinguished from incurable schirrh; which have nevertheless got well in a very reasonable time, and the patients have afterwards suckled children without the least inconvenience. In such cases, more especially, the abscess when formed should always be left to burst of itself, the use of the knife having a direct tendency to increase the induration of the parts, as well as to injure the structure of the breast; and at the best, it has been said, is perfectly unnecessary.

Sometimes, where the suppuration has gone on very slowly, an oozing of ichor or sanies will remain, and often a discharge of milk from the sore, long after the tumor and hardness are removed. And I have been applied to, where a small fistulous sore has remained for some months, which I have safely dried up in as few days, by dressing it with aq. vegetab. mineral. made very strong: but if the sinus runs deep, the astringent solution before-mentioned, used by way of an injection, may be preferable.

The above hints are thrown together, as the result of long experience both in the *British Lying-in Hospital*, and in private practice; not, indeed, as a treatise upon abscesses of the breast, but as the out-lines of a pleasant and safe practice, which every man of experience will know how to apply, and the young practitioner may possibly profit from.

But

But in whatever way any such abscesses may be treated, and however preferable this lenient method most certainly is to the use of the knife, and to the large incisions formerly made, the milk-abscess will very often prove exceedingly painful, while the necessary long use of poultices must render this complaint very disagreeable to the patient. If the number therefore may be in the least diminished, by the speedy cure of sore nipples, such a remedy must be acceptable, in a double respect, to gentlemen engaged in the department of *midwifery*.—Perhaps, surgeons in general may be glad to hear, that the astringent solution is very useful in other fistulous sores than those just mentioned, and is also an excellent application to expedite the healing of large burns, as well as some troublesome venereal ulcers. And I am yet in hopes, when it shall come into hospital use, (which I do not know it ever has,) it may be found very serviceable from its friendly astringency, in many cases which I shall not yet take upon me to speak of. The vitr. cærul. calcined to redness is a very different preparation, as well as a solution of it in its natural state. The latter has been long in hospital use, and particularly *St. Thomas's*, but this is not only a very drying, but a caustic application, and frequently offends irritable sores, unless it be made extremely weak; by which it will be rendered greatly inferior to the solution I have recommended.

STRICTURES

U P O N

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S T R I C T U R E S

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THOUGH various are the sources of knowledge in this country, they must still be considered as imperfect; and, perhaps, nothing is so much wanted for the improvement of the *healing art*, as a public institution similar to the *Académie Royal de Chirurgie*, as established in *Paris*. In *London* there have been of late years, indeed, some private Societies somewhat of that kind; but the number of their respective members is too limited, and familiar admission, as a visitor, is permitted only to a few. Besides, the members of these societies consist chiefly of students, who attend rather to learn than to instruct; whence such establishments are rather calculated to communicate a little superficial knowledge, in a short time, than to perfect any of the

members; many of whom continue only a year or two in *London*. The Institution, in some respects, more resembling that of *Paris*, is with the *College of Physicians*, whose *Fellows*, at stated times, read papers, drawn up by themselves and others, on medical subjects. But though their judgment and impartiality will not be suspected, and their selection of papers may give more satisfaction, than any private editors; yet this institution likewise falls short of the present intention: for besides that their plan is too limited, their readings and observations are not open to the profession in general, and especially to the younger part of it, who have every thing to learn.

For the want of such an Institution, young men, especially such as are to practise in the metropolis, are constrained to read a great deal, and often at a venture; or if they do not, they will lose many a useful hint that is to be picked up in various works where but little might be expected. On the other hand, many a point of useful knowledge is lost, or confined to a very small circle, not so much for its want of importance, as from its being oftentimes a single observation, which for want of an easy mode of communication, can circulate only in a way of conversation; whereby the young artist, conceiving himself unlikely to receive the credit of the observation, very frequently confines it to himself. But Societies with the first Physicians and Surgeons at their head, and open, under proper regulations, to all the students in medicine, where public speaking, and reading of short papers were encouraged, the subjects properly

properly discussed, and the result of experience and inquiry duly published, would quickly spread useful knowledge through the kingdom, rescue many a good practical hint from oblivion, and prevent a great number of larger works on the same subject, (each of which inquisitive men are obliged to wade through;) and would nearly, if not entirely suppress many trifling publications.

I have been led into these reflections from considering different parts of the present little work, and especially the subject immediately in hand; on which I design to say so very little, that it might well have been suppressed, but from the persuasion it will contain some hints not sufficiently known, especially by students, and for which the young reader of the former parts of the work may possibly find occasion, before the hints might otherwise fall in his way.

It was on this account, that the former edition of my Treatise upon Ulcers of the Legs was not published by itself; to which alone, however, I had first turned my thoughts. Persuaded, nevertheless, as I was, that the treatment of some scrophulous tumors might be improved upon, and that the most easy and safe method of managing the milky abscess, as well as other matters there treated, were, by no means, generally known; the work was suffered to put on that miscellaneous appearance, and for the like reasons has received the additions now submitted to the Public; aware of the censures to which it may be on this, as well as other accounts, exposed, I am, nevertheless

vertheless, ambitious to add my small mite to a treasury of knowledge so useful to the world as the *Healing-art*, however the execution may be criticized, or the author misjudged. With the candid, however, it is hoped, the apology may be accepted, (though immethodically introduced in this place) as well for the work at large, as for the present digression, by way of introduction to the very few hints to be offered on the subject of Gangrene.

GANGRENES may be distinguished into four kinds ; such as arise from irritation, attended with more or less of local inflammation ; from an inflammatory diathesis of the system ; from general debility ; and from dyscracy. To each of these species, external injuries may give rise, or become the remote cause.

From this variety, though not always clearly understood, have arisen the different means of cure extolled in different ages and countries, and by different practitioners in the same age and situation.

The most dangerous and frequently fatal gangrene, is that which attends, and is supported by a bad habit of body ; in which opiates, cordials, tonics external and internal, have been found equally inefficacious ; a permanent cause of morbid irritation or atony prevailing, which is sometimes out of the reach of art, especially in aged subjects, and in infants.

More however may be effected even here, or at least, in spreading sphaceli suspected to depend upon a certain habit, as well as in gangrenes from other causes,
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by mere external applications, than may have usually been imagined, and has been one inducement to me to intrude these hints on the Public.

It is not my intention to enlarge on this disorder in general, or to review all that has at different times been advanced ; this disease having been largely discussed, and various successful modes of treatment been recommended. It is certain, however, that neither cordials, volatile salts, opiates, nor even the bark, are efficacious alike, or by any means proper, in every species of gangrene ; though the latter, since the time of *Douglas*, has been so much depended upon, that even *Mr. Pott*, when he first recommended the use of opium in gangrenes of the toes, for which the public is so much indebted to him, seems cautious of being suspected of speaking disrespectfully of a medicine, which in every other species of gangrene, he himself appears to esteem almost a specific.

Every art is confessedly imperfect, but there would certainly be less of imperfection in the practice of physic, were students better directed in their first researches ; which must, however, greatly depend upon their teachers, who ought to lead them between the extremes of implicit confidence, and what may be called scientific scepticism. There is a degree of empiricism pervading every branch of medicine, and too many aware of this, are found running into the maze of theory, and therefore give credit to nothing that they cannot explain, though their arguments are frequently convincing to none but themselves.

Every

Every practitioner, however, should have some direct view in every thing he prescribes, and ought to know what he is to expect from every medicine or topical application, however at a loss about its precise mode of operation. For the want of this, means of cure for various diseases have been handed down to us, which numbers implicitly adopt without any discrimination of causes; and therefore fail of effecting a cure, whilst they are employing excellent remedies for one species of a disease that has various modifications. Hence it is, that the bark and cordials have been so universally extolled for their wonderful success in gangrenes, for different species of which they are almost specifics, whilst they as constantly fail in others, to the surprize only of those, who are prescribing to the *name* of a disease, without attending to concomitant symptoms, and different constitutions.

The bark failing in so many instances, opium, it has been said, has of late years become a fashionable medicine in gangrenes, especially of the extremities; and though it has been serviceable in other cases than those for which it was so happily advised by *Mr. Pott*, has also been productive of mischief when prescribed without that due discrimination, (more attended to, perhaps, by *Mr. Hunter*, than any other writer on this subject, that I know of,) which I shall now in a few instances endeavour to point out to younger practitioners.*

Gangrenes

* As it is a long time since these observations were drawn up, (which have been delayed for want of time to review the tract upon

Gangrenes are frequently attended with much true inflammation, and sometimes are preceded and caused by it; and in this case, however rapid the progress of the gangrene may be, both the bark and other tonics, with every kind of cordial, ought entirely to be refrained from; and bleeding, laxatives, and cooling medicines be exhibited in their stead, with emollient fomentations and cataplasms, (not applied too hot) to abate the sensibility of the part, and promote suppuration. After these evacuations, an opiate should generally be administered at night, (and is proper in every gangrene where the pain is considerable); and these means should be continued as long (though rarely many days) as the inflammatory diathesis shall evidently prevail. For so long as this shall continue, the blood remain fizy, and perhaps the bowels costive, loading them with bark, which the stomach cannot digest, is only adding fuel to fire, by augmenting the load, or increasing the action of the system, and rendering the partially obstructed vessels totally impervious.

But there is often local inflammation and great

upon ulcers) I had not then seen the last edition of *Mr. Bell's Surgery*, in which are many valuable practical observations, and excellent distinctions of gangrenes. Had he more completely accomplished this design, and he himself had experience of the great advantages arising from a due recourse to opium, in very many cases, I had thought the expediency of these hints entirely superseded. But *Mr. Bell* does no more than barely mention that remedy, in a note, as having been recommended upon the authority of *Mr. Pott*.

pain,

pain, attended with a quick and even tense pulse, that depends more upon spasm, than a true inflammatory cause, especially in old people. Here, much caution and general knowledge is required ; but usually opium is the best remedy, and may be safely administered every four or six hours, as the pain may require, after two or three stools have been procured by a gentle laxative or a glyster. Should opium be the proper remedy, it will almost immediately prove useful ; after which, the bark and wine, or other cordial should be directed ; but more especially the bark, as in old people the system is debilitated. For bark is evidently a tonic, and as such has a tendency to strengthen the general system ; whereas cordials are only temporary stimuli, and where the habit continues debilitated, only act as an increase of power in mechanics, and serve to hasten the destruction of the machine.

But should this, or any other plan fail of producing some amendment, it ought not to be long persevered in, as it is possible we may have mistaken both the cause of the disease and the constitution of the patient ; for if our remedies be properly adapted, however rapid the progress of the gangrene may have been, it will usually be very soon checked. Whereas, when a gangrene has continued to spread for days, and even weeks, under the same treatment, (as I have seen under eminent practitioners in regard to the bark ;) if it has at length stopped, and the patient recovered, the recovery may safely be attributed to the strength of the constitution, of which the inflammatory

matory disposition has been brought down by the length of the disease, rather than to the propriety of the means that have been made use of.

On the other hand, I have seen a rapidly spreading gangrene, even in advanced years, where bark has been administered freely without any good effect, immediately checked, upon taking away twelve or fourteen ounces of highly inflamed and fizy blood, unloading the bowels, and instead of cordials and wine, refreshing the heated patient with saline draughts, and afterwards quieting with opium. So also in the spurious inflammation dependent on irritation, I have known opium keep off a disposition to gangrene in the toes, even for years, where the discolouration and pain have constantly returned soon after the opium has been laid aside; although the patient has died at last of a gangrene of the extremities, at an advanced age of life.

By whatever means, however, the gangrene may be stopped, there are but few cases, I believe, where the bark, cordial medicines and wine, will not be found proper at some period of the disease. Should the gangrene take place from atony, general or local, the one or all of these will be proper from the beginning, and the patient must be supported by a generous diet throughout the cure. Should they fail in cases evidently of this class, the vitriol. cærul. should be given instead of the bark, beginning with very small doses, such as an eighth of a grain, or less, four or six times a day, dissolved in a spoonful of spirituous cinnamon water: a medicine excellently adapted to
gangrenes

gangrenes attending that atony of habit induced by an impaired digestion from hard drinking; and as far as my experience has gone, is more efficacious than the bark, whenever the stomach will bear it. I once saw a remarkable instance of this in a large spreading sphacelus, which was immediately checked by it, after the largest doses of the bark had failed; and repeated re-appearances of the gangrene upon returning to the bark, as often stopped by returning to the vitriol.

To conclude this head, let the general habit of the patient, and the state of the part diseased be properly ascertained; let us cease prescribing to the Name of a disease, and cast off the shackles of prejudice; let us only make use of our understanding, and give attention to the symptoms peculiar to the several cases we are treating; and we shall find many gangrenes of the most unpromising appearances, and in a very spreading and sphacelated state, frequently checked by very simple and obvious means, and soon converted into well-conditioned ulcers, disposed to heal up in a reasonable time.

The habit is either in a state of inflammation, and the patient more or less athletic, and then there will always be much true local inflammation; or the habit is atonic, with more or less of spurious inflammation of the parts, the constant concomitant of a debilitated system. To check the inflammation in the one case, and to support the vis vitæ and allay the local morbid action in the other, as well by external as internal means, is equally agreeable to

to sound theory, as it is supported by success and experience.

Before I quit the subject of internal remedies, I cannot avoid taking notice of an inflammation too frequently terminating in dangerous suppuration, or gangrene, that has not, I believe, had that attention paid to it which it deserves; I mean, the case of puncture by an invenomed instrument. This misfortune usually falls to the lot of medical people, when employed in opening dead bodies, and on other occasions somewhat similar; and has too often proved fatal. Such accidents appear to me to be frequently very ill treated from the beginning, by purging, bleeding, and other antiphlogistic remedies, to the exclusion of the only proper, and very opposite means, that of invigorating the system. I have known several such cases treated in the first-mentioned way, and all of them followed by great local mischiefs, and some have even ended fatally. Whereas, in others, where there have been evident marks of infection, and absorption of the poison, along the course of the lymphatic, the evil has been stopped, and the person been perfectly well the next day, by the opposite treatment. The best remedy of this kind, I believe, is wine, which should be partaken of freely, according to the constitution and habits of the patient, and if had recourse to on the day of the accident, or any time before rigor, lowness, thirst, or other symptom of affection of the system have taken place, will generally prevent farther infection, by stirring up the vires medicatrices naturæ to expel the poison. This

may be farther promoted by proper doses of the bark, taken on the next day. The punctured part should also be touched with the lunar caustic, or if the injury be considerable, with the caustic alkali, which will penetrate deeper.

HAVING given these brief hints, I shall now close with some similar reflections on topical applications.

When the probable cause of the gangrene has been discovered, together with the general habit, and present circumstances of the patient, the surgeon will be at no loss how to adapt his applications and dressings; and this should be invariably done. To stimulate and irritate an inflamed part, already too much in action, by balsams and spirits, when the general habit needs to be cooled and unloaded, were as contrary to good principles, as it must be unsuccessful in practice. Here, emollient and relaxing fomentations, poultices, and ointments, are the most likely to abate the inflammation, to liberate the vessels of the part, and assist nature to separate the eschar. On the other hand, poultices of stale beer and oatmeal, so frequently and indiscriminately applied to sphacelated parts, are not only always improper where there is much true inflammation, but even in the atonic state, often do harm from their weight: in the former case, a poultice of fine linseed-meal with a little ointment of Elder-flowers, will be found preferable; for the latter, a soft bread and milk poultice with a good deal of theriaca. For gangrenes in old people, and often for those of infants, especially if the gangrene is small, the theriaca alone is
a very

a very convenient application. It is light, potentially warm, and yet somewhat sedative ; it does not very soon get dry, and is more conveniently renewed than poultices and fomentations ; and is seldom improper in such subjects, unless the local action be considerably greater than the powers of the system. But even then, the attempt may often be made with success, as a contrary stimulus will sometimes change the undue and morbid action of the parts, and occasion a favorable turn to the disease.

But the parts contiguous to the seat of gangrene, are almost always very painful, as long as the sphacelus continues to spread, and are in this painful state often improperly irritated by heating applications. The propriety of topicals should ever be determined by their effects, and are generally hurtful, in these cases, if they occasion much pain ; and should this effect of stimulating applications, or even of fomentations and warmed poultices, continue for some hours after the gangrene has been dressed, they should be changed for those of a different quality, unless there be an evident atony of the parts. There may be, it has been said, a state of general debility, though from irritation there may be too great local action, which if not soon removed by a contrary stimulus from active applications, the continuing of them will increase the complaint. Here, sedatives, and sometimes poultices of bark, applied cold, may be made use of for a while, and will often do wonders, by allaying the morbid action of the parts,

and mitigating the pain; after which, tonics external and internal, should be employed.

By this means it is, I apprehend, that the fermenting poultice * has been found of late years so very serviceable, and is a grand acquisition in surgery; but is too little known, by appearing only in a work not generally read by young surgeons. Its effects have been astonishing, and perhaps are assisted by wrapping up the parts above the gangrene in compresses wrung out of spirits, and renewed as they become dry. It may not operate, however, altogether in the way *Mr. Power* has conceived, nor yet by creating heat, as others have supposed, but as much from its being a sedative, and applied in a cold state, as from any specific quality of its contents; and therefore derives not its chief virtues from its absorbing, or correcting the acrimonious juices contained in sphacelated parts, if it should be allowed to have any tendency that way. However this may be, I believe it has effected cures, where seemingly from a bad habit of body, gangrenes have been in a spreading state for a long time together.

In regard to scarifications, I believe it may be said, that if we only cut through the eschar, and do not penetrate the sound parts, they will sometimes

* This may be made of flour, honey, and water, mixed up with yeast, and spread into a thin paste, and set near the fire till it shall begin to ferment; and in that state should be laid on the part, once or twice a day, if the pain be very great. See *Appendix to Medical Transactions of the College of Physicians*. Vol. ii.

be useful, both by taking off from the load and pressure, and letting out an offensive ichor: likewise in some instances, scarifications above the gangrened part where the limb is greatly enlarged, and the parts loaded with extravasated serum, appear to prevent the spreading of the gangrene upwards, and are eventually beneficial.

I have only farther to observe, that as not a few patients sink in consequence of the discharge, even long after a separation of parts has taken place, in cases where amputation is impracticable; nothing can be more evidently indicated at this period, than good air, a nourishing and generous diet, a moderate quantity of wine, and other cordials, with such tonic medicines as may best agree with the stomach.

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